

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
in cooperation with
STATE AGRICULTURAL EXPERIMENT STATIONS

COMPARISON OF
WINTER WHEAT VARIETIES GROWN IN COOPERATIVE
NURSERY EXPERIMENTS IN THE
HARD RED WINTER WHEAT REGION
IN 1988

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This is a joint progress report of cooperative investigations under way in the State Agricultural Experiment Stations and the Agricultural Research Service of the U. S. Department of Agriculture containing preliminary data which have not been sufficiently confirmed to justify general release. Interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. The report is primarily a tool for use of cooperators and their official staffs and for those persons having direct and special interest in the development of agricultural research programs.

The report includes data furnished by the State Agricultural Experiment Stations as well as by the Agricultural Research Service and was compiled in the Central States Area, U. S. Department of Agriculture. The report is not intended for publication and should not be referred to in literature citations nor quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the agency or agencies involved.

Lincoln, Nebraska
March, 1989

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CENTRAL STATES AREA

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By

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CONTENTS

	<u>Page</u>
Cooperating agencies, stations, and personnel -----	2
Regional notes -----	6
New varieties and germplasm -----	7
Southern Regional Performance Nursery -----	8
Test site information -----	9
Individual test site results -----	13
Summary of SRPN yields -----	42
Summary of agronomic data -----	55
Northern Regional Performance Nursery -----	63
Test site information -----	64
Individual test site results -----	66
Summary of NRPN yields -----	86
Summary of agronomic data -----	98
Quality data -----	104
Uniform Winterhardiness Nurseries -----	105
Soil-borne Mosaic Nursery -----	117

The writer expresses appreciation to Joyce Kovar for assistance in preparing this report.

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REGIONAL NOTES

The 1988 Hard Red Winter Wheat Breeders field day was held on June 9th at the University of Nebraska Agronomy Farm in Lincoln, Nebraska. Cooperators also visited a Pioneer wheat nursery near Beatrice.

The 1989 Breeders Field Day is to be held at Stillwater, OK in late May.

The 18th Hard Red Winter Wheat Workers Conference was held on January 31 through February 2, 1989 at Dallas, Texas. Proceedings from the conference will be available in the near future through Dr. David Marshall, Texas A&M, Dallas.

Dr. Owen Merkle, Research Geneticist with the USDA/ARS at Stillwater, OK retired on December 31, 1988. Dr. Merkle accepted a position with MIAC Morocco project and is now stationed in Settat, Morocco as an Agronomist.

Dr. Kenneth Porter, Texas A&M Wheat Breeder stationed at Bushland, TX, retired in August of 1988. A replacement has not been named at this time.

Dr. A. D. Hewings was hired in 1988 by the USDA-ARS at Urbana, Illinois, replacing Dr. H. Jedlinski in small grains virology research efforts.

NOTE: The response reaction of entries to leaf and stem rust infection has been coded on a 1-9 scale to facilitate generation of this report. This same scale has been used in past reports. The response data can be interpreted as follows:

<u>Response scale</u>		<u>Reaction type</u>
1	-	VR
2	-	R
3	-	MR
4	-	M
5	-	M
6	-	M
7	-	MS
8	-	S
9	-	VS

NEW VARIETIES AND GERMPLASM

The following is only a partial list of new wheat varieties and germplasms available in the region. Included are those for which we have current information.

VARIETIES

The Kansas Agricultural Experiment Station and the USDA/ARS have announced the release of the hard red winter wheat variety 'Karl' (P.I. 527480). Karl was tested in the 1986 and 1987 SRPN as KS831374 and originates from the cross Plainsman V/3/Kaw/Atlas 50//Parker*5/Agent. Karl possesses excellent milling and baking qualities with grain protein concentrations approximately 1% higher than Eagle or 2% higher than Newton. Karl is resistant to soilborne mosaic and spindle streak mosaic viruses and provides excellent protection against leaf rust and tan spot.

The Colorado Agricultural Experiment Station has announced the release of the hard red winter wheat variety 'Lamar'. Lamar was tested in the 1987 and 1988 SRPN as CO820009 and originates from the cross 74F878/Wings//Vona. Lamar is a conventional medium height wheat with excellent quality. Lamar has shown significant tolerance to water stress and ability to fill grain under drought stress conditions. It is targeted for production in southeast Colorado.

Nickerson American Plant Breeders has announced the release of four winter wheat varieties:

'Bronco' is a hard red winter wheat derived from the cross Payne/W87-069. Bronco is a medium maturity, tall semidwarf with adaptation to the major wheat growing areas of Colorado, Kansas, Oklahoma, northern Texas, and southern Nebraska. Bronco was tested in the 1988 SRPN as NA-W83-256

'Rio Blanco' is a hard white winter wheat derived from the cross OK1125A/W76-1226. It is similar in many respects to its sister line Mesa but differs in that it is recessive for all three alleles for red seed coat. Rio Blanco is a medium maturity, short to intermediate height semidwarf with adaptation to the major wheat growing areas of Colorado, Kansas, Oklahoma, northern Texas, and southern Nebraska. Rio Blanco was tested in the 1988 SRPN as NA-W81-162W.

'Sierra' is a hard red winter wheat derived from the cross W79-227/Payne. Sierra is a medium maturity, intermediate height semidwarf with adaptation to Kansas, southern Nebraska, eastern Colorado, and the Oklahoma and Texas panhandle irrigated areas. Sierra was tested in the 1988 SRPN as NA-W84-229.

'Waco' is a hard red winter wheat derived from the cross W77-355/MN70113. Waco is a very early maturity, intermediate height semidwarf with primary adaptation to the north-central and northeastern portions of Texas. Waco was tested under the experimental designation W83-253.

1988
Southern Regional Performance Nursery

<u>Entry No.</u>	<u>Variety or Pedigree</u>	<u>Sel. No.</u>	<u>Source</u>
1**	Kharkof	CI1442	Check
2**	Scout 66	CI13996	"
3**	TAM-105	CI17826	"
4	Aurora/2*TAM W-101	OK84343	Oklahoma
5*	Payne*2/C0725052	OK84286	"
6*	" "	OK84287	"
7*	Hawk/OK80099	OK86197	"
8*	OK79257/Century Sib/2/Chisholm	OK86215	"
9	TAM W-101*4/Amigo*4//Largo	TXGH10989	Texas
10	Sturdy*3/Amigo	TX81V6582-2	"
11	TAM-105*4/Amigo*4//Largo	TXGH10563B	"
12	KS73146/TX71A1039	TX84V1336	"
13	TX71A562-6*4/Amigo*4//Largo	TXGH13622	"
14	TX71A374-4/TX71A1039-V1	TX84V1317	"
15	TX71A1039-V1*3/Amigo	TX81V6607-2	"
16*	TAM-106 resel./TX6904819	TX84V1736	"
17*	TAM-108/Arkan	TX86A7041	"
18*	Rannaya/NE701136//CI13449/Ctk	TX86V1109	"
19*	" "	TX86V1110	"
20	74F878/Wings//Vona	C082009	Colorado
21	74cb462/Trapper//Vona	C0830027	"
22	C05926//7C/Tobari 63/3/Baca	C0830034	"
23*	74cb452/Vona//Baca	C0830014	"
24	Bison/Sterling//3*Scout/3/Eagle/4/ Pinnacle/2*Eagle	KS84HW196	Kansas
25	Bulk Selection	KS82C2338	"
26	KS73167/Agate//Sage sib	NE82533	Nebraska
27*	Wrr/Sut//MoW6811/3/Agate Sib/4/NE68457/Ctk78	NE84557	"
28*	CIMMYT/Scout//Bennett Sib/4/Parker*4/Agent //Belot.198/Lcr/3/Bez 1/Ctk78	NE83407	"
29***	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	"
30*	Winter Wheat Line	RL844677	Rohm & Haas
31*	Winter Wheat Line	RL845472	"
32*	HRW Selection	AGC-112	Seed Research
33*	" "	AGC-113	"
34	Bezostaya/TAM W-101//W558	XW141	Pioneer
35*	TAM W-101/W603//W558	XW161	"
36*	Winter Wheat Hybrid	XH675	HybriTech
37*	" "	XH685	"
38**	Bounty Hybrid Wheat	Bounty-122	Cargill
39*	" "	WH180001	"
40*	W79-227/Payne	NA-W84-229	NAPB
41*	Payne/W78-069	NA-W83-256	"
42*	OK11252A/W79-1226	NA-W81-162-W	"
43*	IL77-4259/IL76-3845	IL83-7439	Illinois
44*	TX69A330/IL76-3820	IL80-1251	"
45*	CHA Hybrid Mustang/3/T-105*4/Amigo*4//Largo, TXGH10287	TX87HA1	Texas

* New Entry in 1988, ** New Seed Provided, *** Entered from NRPN

TEST SITE INFORMATION - SRPN

Clovis, NM -- The dryland nursery was planted on 9/22/87 at a rate of 35 lbs/a. Fertilizer was applied preplant incorporated at a rate of 21 lbs/a nitrogen and 43 lbs/a phosphate.

The irrigated nursery was planted on 10/6/87 at a rate of 70 lbs/a. Fertilizer was applied preplant incorporated at a rate of 129 lbs/a nitrogen and 43 lbs/a phosphate.

Precipitation for August and September was above normal with 9.95 inches occurring in August. The following six months received below normal precipitation totaling only 2.03 inches. Harvest was delayed due to heavy rains in May and June (17.46 inches).

An infestation of Russian wheat aphid reached economic threshold levels by April 11, 1988. An application of 0.5 lbs/a a.i. Dimethoate was used to control the aphid. Leaf rust did not appear until hard dough stage and occurred at higher levels on the irrigated nursery. It did not, however, seem to affect yields. No other diseases were detected during the growing season.

Farmington, NM -- The nursery was sprayed two times in fall and spring for Russian wheat aphid control.

Bushland, TX -- The irrigated nursery was fertilized on 9/28/87 with 155 lbs/a N ammonium sulfate and sown on 10/20/87 at 65 lbs/a or 73 kg/ha. It was irrigated with 3.5 acre inches on 4/12/88, 5/2/88, and 5/18/88 followed by 2.39 inches of rainfall on 5/31/88. The low test weight of entries was not well explained. Failure to control Russian aphids late in the fruiting period may have been a contributing factor. Yellowing of some entries at heading suggested barley yellow dwarf infection but wheat streak or other viruses could be involved. Symptoms were not definitive.

The dryland nursery was sown on 10/6/88 at 32 lbs/a or 36 kg/ha. The nursery was ground sprayed with 1/3 oz/a Glean on 3/21/88 to control weeds. It was not fertilized. September rainfall was more than twice normal and December precipitation in the form of snow was almost three times normal. January through March was slightly below normal precipitation while April and May was 2.25 inches above normal.

Both nurseries were airplane sprayed with 1/2 lb/a Dimethoate for Russian aphid and greenbug control on 3/19/88 and 4/12/88.

Chillicothe, TX -- No information.

Dallas, TX -- A total of 100/46/0 lbs/a fertilizer (N/P/K) was applied. Emergence was delayed about 10 days due to dry conditions. There was good moisture from January through March with essentially no rains during April or May. Conditions were good for development with the highest yields in the Central Texas Blacklands in the past ten years and disease severities were relatively low.

Stillwater, OK -- There were near adequate soil moisture levels and mild temperatures throughout most of the season and no significant freeze damage. A uniform infection of barley yellow dwarf virus probably caused yield reductions in susceptible cultivars.

Lahoma, OK -- Temperatures were mild and soil moisture was adequate through most of the season. There was no significant disease or insect damage and no freeze damage.

Altus, OK -- Temperatures were mild and soil moisture better than average through most of the season for this location. A heavy leaf rust infection was present on susceptible cultivars. There was no significant freeze damage.

Goodwell, OK -- The nursery was pre-irrigated on 9/23/87 and irrigated on 3/23/88 and 5/10/88. Temperatures were mild throughout most of the season. There was no significant disease or insect damage and no freeze damage.

Hutchinson, KS -- The nursery was completely wiped out by wheat streak mosaic virus. Performance is an indication of tolerance to this disease.

Manhattan, KS -- Relatively good conditions and timely rains provided better than expected yields. A late, heavy infection of leaf rust influenced filling and reduced yields of susceptible cultivars.

Hays, KS -- Soil conditions in the fall were dry, however within three days of planting the nursery received 0.35 inches of rain which allowed for fairly uniform stands. Fall and winter growth was very limited. Winter survival was good. The nursery received 1.35 inches of rain on April 1, but no additional effective rainfall was received. Flowering dates were about average for the area but hot, dry conditions resulted in an early harvest date. Diseases and insects were not a factor in this test.

Garden City, KS -- The growing season ranged from normal to dry conditions. There was no disease pressure other than wheat streak mosaic virus and a late minor infection of leaf rust. Wheat streak mosaic virus adversely affected yields.

Colby, KS -- The nursery was abandoned due to poor stands. Planting conditions were very dry.

Ft. Collins, CO -- Nursery abandoned due to poor stand establishment.

Akron, CO -- No information.

Burlington, CO -- No information.

Walsh, CO -- Nursery abandoned due to hail damage.

Julesburg, CO -- No information.

Lincoln, NE -- The nursery was planted at a near optimal date with adequate fall and spring moisture. Winterkilling was a minor problem. Despite a generally dry and hot early summer, timely rains prevented drought stress. Leaf rust was prevalent.

Clay Center, NE -- The nursery was planted at a near optimal date with adequate fall and spring moisture. Winterkilling was a minor problem. Severe drought and heat during grain filling limited yields.

North Platte, NE -- The nursery was planted at a near optimal date with below adequate fall moisture. Winterkilling was a minor problem. Stands were very irregular with plot border rows failing to emerge as well as the center rows. Early spring moisture was ideal for the spread of *Cephalosporium* stripe which differentially affected the cultivars. Grain filling was abruptly ended by heat and wind with some lines dying green. Data are not reported due to variability in emergence.

Sidney, NE -- The nursery was abandoned due to hail.

Alliance, NE -- The nursery was planted at a near optimal date with adequate fall and spring moisture. Winterkilling was a minor problem. Adequate moisture was present during grain filling. A fertility gradient was present in the field which increased plot variability.

Brookings, SD -- The nursery was seeded on 9/11/87 into good moisture. Flax was planted as a snow-catch crop. A mild winter with adequate snow cover allowed 100% survival. An early, hot, dry spring and summer reduced yield potential. No disease or insect problems. Harvested on 7/5/88.

Presho, SD -- Seeded on 9/8/87 into fallowed ground with adequate moisture. A mild winter allowed for 100% survival. There were heavy fall infestations of wheat curl mite and R. Padi. The spring and summer were extremely hot and dry. WSMV and BYDV were very evident. Notes were taken on general plant appearance. Harvested on 7/6/88.

Casselton, ND -- The nursery was planted on 9/9/87. Less than 50% winter survival was recorded for most plots. Dry conditions were experienced from planting through harvest with less than 40% of normal precipitation received from April through July.

Columbia, MO -- No information.

Ames, IA -- The nursery was planted on 9/23/87 and emerged on 9/30/87. Fall moisture and growth was adequate. There was heavy winterkill on non-hardy cultivars. A dry spring and high temperatures in the early summer shortened plant growth. Plants ripened about 10 days ahead of normal with very little disease evident. Grain was bright, clean, and reasonably plump. Yields were fairly good despite low moisture and rapid growth.

Urbana, IL -- Soil moisture was good at planting and fall stands were excellent. Winter temperatures were fairly mild with snow cover during part of the winter. Most plots had excellent stands in the spring. Rainfall from January through harvest was below normal. Conditions became progressively drier throughout the season and diseases did not develop.

Lind, WA -- The fall was very dry with poor moisture conditions and poor emergence. The winter was mild with little moisture. Spring conditions were cool and moist with above normal precipitation in March, April and May.

Aberdeen, ID -- A total of 200 lb/a N and 40 lbs/a P were applied to the nursery. There were low levels of rainfall and snowfall for the crop season and hot summer temperatures. A total of 190 mm irrigation was applied. A slight leaf rust infection occurred late in the season. Planted on 9/25/87 and harvested 8/19/88.

Table 1. Yield and agronomic data for 45 entries in the Southern Regional Performance Nursery in 1988.

CLOVIS (IRR.)

NEW MEXICO

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : KG/HA :	: VOLUME : WEIGHT : : KG/HL :	: PLANT : HEIGHT : : CM :	: DAYS TO : HEADING : : FROM 1/1 :	: LEAF RUST: : SEV.:RESP: : % : 0-9:
TXGH13622	13	7176	71.5	80	134	9
TXGH10563B	11	7081	70.3	80	130	7
AGC-112	32	6835	68.9	82	131	4
CI17826	3	6348	69.6	79	133	8
OK84286	5	6326	69.1	83	134	10
XH675	36	5940	68.5	86	135	4
RL844677	30	5880	72	83	137	4
OK84287	6	5858	69.1	79	133	7
C0830027	21	5841	70.6	86	134	10
TXGH10989	9	5762	68.8	77	133	7
TX84V1317	14	5739	71	78	131	4
XW161	35	5691	67	72	130	2
WH180001	39	5640	68.3	81	134	4
OK84343	4	5625	68.8	75	134	1
TX84V1336	12	5617	68.8	79	130	4
NE84557	27	5536	71	79	137	15
OK86215	8	5483	71.3	82	131	4
OK86197	7	5471	67.7	82	130	4
TX86V1110	19	5442	66.8	87	133	1
C0830014	23	5420	71	89	135	9
Bounty-122	38	5419	65.2	83	134	12
NA-W84-229	40	5389	68.5	77	135	2
TX87HA1	45	5331	70.5	79	132	15
NA-W83-256	41	5323	68.3	79	136	4
KS82C2338	25	5248	71.1	75	130	5
C0830034	22	5236	70.3	80	137	5
TX84V1736	16	5139	69.2	74	130	7
NA-W81-162-W	42	5098	69.2	77	133	4
IL80-1251	44	5095	69.3	77	137	4
XH685	37	5042	67.2	83	134	2
CI13996	2	4907	69.4	87	134	8
TX81V6607-2	15	4870	71.9	72	131	1
NE82533	26	4756	69.8	78	137	4
NE82656	29	4722	64.9	77	137	1
TX86V1109	18	4585	67.4	83	134	2
TX81V6582-2	10	4506	70.4	69	130	5
NE83407	28	4432	65.2	76	137	4
TX86A7041	17	4407	65	72	135	1
XW141	34	4387	66	71	136	1
RL845472	31	4122	67.9	90	138	4
AGC-113	33	3985	64.4	77	137	5
KS84HW196	24	3911	70.1	76	130	1
CI1442	1	3833	69.3	96	144	5
C082009	20	3775	69.2	82	137	13
IL83-7439	43	3765	66.1	79	136	2
MEAN		5244				
LSD(.05)		1202				
C.V.		14.0				

CLOVIS (DRYL.)
NEW MEXICO
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD : KG/HA	: VOLUME : WEIGHT : KG/HL	: PLANT : HEIGHT : CM	: DAYS TO : HEADING : FROM 1/1	: LEAF RUST: : SEV.: : %	: RESP: : 0-9:
TXGH10563B	11	3257	73.9	64	125	27	
TX87HA1	45	2970	75.7	68	129	27	
TXGH13622	13	2922	73.7	57	130	4	
CI17826	3	2666	72.1	64	127	23	
CI13996	2	2567	72.2	71	130	1	
XH675	36	2456	71.3	64	130	2	
RL845472	31	2338	73	65	129	2	
OK84287	6	2265	71.3	60	129	4	
TXGH10989	9	2170	70.6	60	129	9	
TX84V1336	12	2069	72.9	56	125	1	
AGC-112	32	2044	72.8	58	128	22	
TX84V1317	14	2033	72.4	56	129	1	
IL80-1251	44	1994	72.4	59	130	2	
TX81V6607-2	15	1980	75.5	57	128	5	
C0830014	23	1945	73.6	64	130	7	
C082009	20	1849	73.4	63	134	7	
OK84286	5	1743	71.3	57	130	1	
TX86A7041	17	1728	66.5	59	130	1	
TX84V1736	16	1700	71.9	54	125	4	
OK86215	8	1677	71.8	59	128	5	
OK84343	4	1629	69.9	57	130	4	
TX86V1109	18	1601	68	69	129	1	
TX81V6582-2	10	1579	72.2	57	126	7	
NA-W83-256	41	1578	69.9	59	131	2	
TX86V1110	19	1538	66.6	67	129	11	
WH180001	39	1531	69.3	62	131	7	
C0830027	21	1521	72.2	58	129	2	
XH685	37	1483	71.1	59	130	4	
KS84HW196	24	1455	72.1	57	127	1	
NE84557	27	1414	72.6	56	131	1	
C0830034	22	1384	72.7	58	134	14	
NA-W81-162-W	42	1346	69.9	53	130	2	
RL844677	30	1342	72	59	135	1	
OK86197	7	1198	69.4	56	129	1	
Bounty-122	38	1146	67.4	55	130	7	
CI1442	1	1126	65.9	76	144	14	
NA-W84-229	40	1113	70	48	131	1	
KS82C2338	25	1110	70.7	58	129	14	
NE83407	28	974	67.5	52	135	2	
NE82656	29	973	68.2	58	134	4	
IL83-7439	43	871	67.6	58	130	1	
AGC-113	33	868	66.2	58	135	4	
NE82533	26	831	69.1	55	133	11	
XW141	34	697	61.4	53	133	1	
XW161	35	678	67.2	49	123	1	
MEAN		1675					
LSD(.05)		987					
C.V.		36.1					

FARMINGTON
NEW MEXICO
FOUR REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	YIELD : KG/HA :	VOLUME : WEIGHT : : KG/HL :	PLANT : HEIGHT : : CM :	DAYS TO : HEADING : : FROM 1/1:
TX86A7041	17	8006	75.8	90	139
XH685	37	7141	77.4	102	137
AGC-113	33	7038	75.1	100	139
NA-W84-229	40	6965	77.7	85	137
XH675	36	6950	77.7	99	136
RL844677	30	6833	78	105	139
C0830027	21	6789	79	99	136
C0830034	22	6745	79	103	137
TX84V1336	12	6569	77.4	84	133
XW141	34	6510	77.1	85	137
C117826	3	6349	76.4	91	135
TXGH10563B	11	6334	74.8	92	134
C082009	20	6334	79	101	139
TX81V6607-2	15	6305	77.1	81	135
TX84V1317	14	6217	77.7	83	133
IL80-1251	44	6070	76.1	91	135
Bounty-122	38	6056	75.1	91	135
TX81V6582-2	10	5938	79.3	77	132
WH180001	39	5938	75.8	93	135
NA-W83-256	41	5909	75.1	92	139
AGC-112	32	5821	75.1	89	136
NE82656	29	5806	72.9	98	137
NE82533	26	5718	78.4	100	136
TXGH13622	13	5630	74.8	89	137
XW161	35	5630	74.5	69	132
NA-W81-162-W	42	5586	76.8	84	135
NE84557	27	5440	77.1	100	136
TX87HA1	45	5381	73.5	95	135
C11442	1	5322	76.4	126	143
OK84287	6	5249	76.8	90	138
IL83-7439	43	5220	75.5	98	135
TX86V1109	18	5191	74.5	93	135
TX86V1110	19	5147	75.5	90	134
KS82C2338	25	5147	79	90	133
OK84286	5	5117	76.4	92	138
OK86215	8	5117	74.8	89	134
OK84343	4	5088	74.2	84	132
NE83407	28	5073	72.6	86	137
TX84V1736	16	5059	77.1	77	133
RL845472	31	5015	76.4	92	138
TXGH10989	9	5000	75.1	81	133
C0830014	23	4795	75.1	110	136
OK86197	7	4560	73.9	87	133
C113996	2	4311	75.8	105	133
KS84HW196	24	3739	71.3	84	132
MEAN		5781			
LSD(.05)		1255			
C.V.		15.5			

BUSHLAND (IRR.)
TEXAS
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: LODGING %	: YELLOW INDEX 0-9
TX81V6607-2	15	6226	74.2	82	130	27	1
TX81V6582-2	10	5984	73.5	85	128	30	1
TX84V1336	12	5661	71.2	87	130	27	2
TXGH105638	11	5502	68.1	89	129	35	1
XW161	35	5360	70.1	85	127	0	3
TX87HA1	45	5273	69.9	88	132	10	3
TX84V1736	16	5183	71.1	83	128	37	3
AGC-112	32	5142	66.3	82	130	38	1
TX84V1317	14	5107	71.2	82	130	18	3
TXGH13622	13	5102	69.6	90	132	57	2
OK84343	4	4974	72.1	88	133	2	2
XH675	36	4922	69.6	92	133	13	1
OK84286	5	4887	69.7	89	133	18	3
OK86215	8	4878	70.8	87	131	22	3
NA-W84-229	40	4781	69.6	86	133	0	3
C0830027	21	4779	73.7	92	131	40	2
TXGH10989	9	4757	70.1	88	130	55	1
OK84287	6	4711	69.2	90	133	13	3
KS82C2338	25	4694	70.7	88	131	12	3
XH685	37	4649	68.5	87	133	13	2
Bounty-122	38	4642	65	91	133	8	2
NA-W81-162-W	42	4487	68.7	81	133	7	3
WH180001	39	4407	68.5	94	134	15	4
IL80-1251	44	4400	68.5	89	135	10	4
KS84HW196	24	4389	72	82	129	53	4
XW141	34	4344	65.6	82	133	5	1
OK86197	7	4341	70.7	90	131	62	2
RL845472	31	4297	71.6	86	134	23	2
NA-W83-256	41	4220	68.3	87	135	22	2
TX86A7041	17	4142	64.5	74			
CI17826	3	4097	65.6	88			
TX86V1109	18	4072	70.3	88			
TX86V1110	19	4048	69.2	90			
NE82656	29	4036	66.8	90			
NE83407	28	4014	64.1	85			
RL844677	30	4009	69.2	93			
C0830034	22	3902	67.6	92			
IL83-7439	43	3823	69	91			
NE84557	27	3249	71.2	91			
C0830014	23	3210	70.5	91			
C082009	20	3152	68.9	91			
NE82533	26	3045	69.4	91	136	5	3
AGC-113	33	2966	61.8	89	136	30	2
CI13996	2	2870	70.8	92	134	73	4
CI1442	1	1734	68	95	142	68	3
MEAN		4410					
LSD(.05)		500					
C.V.		6.9					

BUSHLAND (DRYL.)

TEXAS

FOUR REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: YELLOW INDEX 0-9
TX81V6607-2	15	3685	82.6	62	128	2
TX81V6582-2	10	3373	81.1	61	127	2
TXGH13622	13	3160	79.2	62	129	2
TX84V1336	12	3157	79.6	62	128	3
TXGH105638	11	3039	78.1	65	127	2
AGC-112	32	3014	79.1	64	127	2
TX84V1317	14	2977	80.2	63	127	4
TXGH10989	9	2861	79.1	64	128	1
C0830034	22	2857	78.7	70	132	4
C0830027	21	2839	80.4	75	130	2
C117826	3	2835	78.7	66	129	2
OK84286	5	2825	78.6	63	130	1
TX87HA1	45	2825	77.8	63	128	2
TX84V1736	16	2740	77.8	62	127	2
OK84287	6	2677	78.8	63	130	1
OK86215	8	2672	78.2	65	128	2
XH675	36	2650	76.6	71	131	3
XH685	37	2637	76.5	68	131	3
RL845472	31	2570	79.9	67	131	3
OK86197	7	2460	77.5	64	127	3
RL844677	30	2449	78.8	68	133	4
AGC-113	33	2435	75.7	66	133	3
NE84557	27	2402	79	67	134	5
NA-W83-256	41	2369	77.8	63	131	2
KS82C2338	25	2361	79.9	65	128	3
IL80-1251	44	2349	77.2	64	133	4
NA-W81-162-W	42	2329	78.1	61	130	3
TX86V1110	19	2326	76.1	71	128	4
KS84HW196	24	2321	79	65	127	4
TX86A7041	17	2319	76.1	57	133	4
OK84343	4	2260	76.8	62	130	3
C082009	20	2114	79.1	67	134	4
TX86V1109	18	2063	76.6	60	129	4
NE83407	28	2043	73.8	57	134	4
WH180001	39	2031	77.2	63	131	3
CI13996	2	1987	79	75	132	5
Bounty-122	38	1972	76.8	64	132	4
XW161	35	1950	77.4	56	127	4
C0830014	23	1949	78.6	71	131	6
NA-W84-229	40	1927	76.9	52	132	5
XW141	34	1875	76.2	51	132	3
NE82533	26	1841	76.9	66	134	4
NE82656	29	1589	75.6	64	134	4
IL83-7439	43	1541	76.5	58	132	6
CI1442	1	1017	72.3	66	138	5

MEAN 2437
LSD(.05) 475
C.V. 13.9

CHILLICOTHE
TEXAS
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1:
TX81V6607-2	15	4741	84.2	70	109
RL844677	30	4730	81.1	82	112
XW161	35	4723	82.8	70	106
C0830027	21	4656	82.5	86	111
TXGH13622	13	4580	82.8	79	110
TX87HA1	45	4557	80.8	81	109
NA-W81-162-W	42	4542	81.3	74	111
C0830014	23	4506	81.7	89	110
TXGH10563B	11	4492	80.2	71	107
TX86V1110	19	4398	80.4	88	110
TX84V1317	14	4389	81.2	73	110
NE83407	28	4317	76	78	116
TX81V6582-2	10	4311	82.9	70	106
TX84V1336	12	4311	81.5	69	108
IL80-1251	44	4270	78.2	82	118
NE84557	27	4235	81.9	93	119
XW141	34	4201	80.4	76	112
NE82656	29	4176	77.9	83	116
RL845472	31	4176	80.9	88	115
TX84V1736	16	4165	80.9	67	106
TX86A7041	17	4152	76.2	74	112
TXGH10989	9	4147	79.5	78	111
C0830034	22	4140	80.4	92	115
TX86V1109	18	4131	80.6	92	110
Bounty-122	38	4122	79.8	73	109
WH180001	39	4122	79.7	83	114
NE82533	26	4120	80.4	84	117
AGC-113	33	4096	76.6	82	118
XH675	36	4084	79.7	80	111
KS82C2338	25	4075	82.8	77	106
XH685	37	4069	79.7	83	111
NA-W83-256	41	4066	77.1	74	112
AGC-112	32	4060	78.5	75	108
OK86215	8	4046	81.3	76	106
OK84343	4	4013	79.9	75	112
NA-W84-229	40	4001	79.9	71	112
OK84286	5	3974	80.5	73	110
OK84287	6	3797	80.4	76	111
CI13996	2	3762	79.1	101	116
IL83-7439	43	3757	80	80	116
CI17826	3	3717	75.5	77	112
OK86197	7	3670	80.7	78	109
C082009	20	3654	80.7	92	117
KS84HW196	24	3237	81.5	75	112
CI1442	1	2849	77.3	96	127

MEAN	4141
LSD(.05)	532
C.V.	7.9

DALLAS, TEXAS -- THREE REPLICATIONS

C.I. OR SEL. NO.	ENTRY: NO.	YIELD KG/HA	VOLUME KG/HL	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	LEAF RUST SEV.	MILDEW %	SEPTORIA 0-9	BYD VIRUS 0-5
XH675	36	4222	76.7	79	108	5	8	6	1
TX86A7041	17	4192	73.2	74	110	5	7	6	0.5
Bounty-122	38	4190	73.6	76	104	10	8	7	2
NA-W83-256	41	4094	75.4	79	109	15	8	6	1
TX84V1736	16	4081	77.7	69	101	5	8	6	1
XW161	35	3984	76.3	64	104	0	8	6	2
TXGH13622	13	3973	76.1	79	108	30	8	7	1
TX84V1336	12	3933	76.7	76	109	15	7	7	2
XH685	37	3924	75.8	81	108	1	7	7	2
OK86215	8	3907	77.1	71	103	5	8	7	1
OK86197	7	3905	76	76	108	15	8	6	0.5
NA-W81-162-W	42	3791	76.8	71	110	1	8	6	2
C0830027	21	3775	77.5	84	110	30	8	7	1
RL844677	30	3770	77.1	84	109	1	8	6	1
TX86V1109	18	3757	75.3	86	105	5	8	6	1.5
OK84286	5	3714	77.1	71	104	1	7	6	1
TX87HA1	45	3702	75.7	76	106	40	8	6	1.5
TXGH10563B	11	3630	74.8	79	107	15	8	6	2
TX81V6607-2	15	3560	78.9	71	110	5	8	6	2.5
AGC-113	33	3494	73.3	76	113	10	8	7	3
TX84V1317	14	3474	76.3	71	109	5	8	7	2.5
TXGH10989	9	3471	71.7	79	113	5	8	5	2
C0830014	23	3465	76.1	94	108	35	8	6	1
OK84287	6	3420	78.2	71	105	1	7	6	0.5
OK84343	4	3409	75.4	71	118	1	7	6	2.5
NE83407	28	3396	73.4	71	113	5	8	6	1
AGC-112	32	3395	74.6	74	108	30	8	7	3
NE82656	29	3354	73.7	76	121	0	8	6	1
C0830034	22	3326	75.4	89	114	25	8	7	1
TX86V1110	19	3303	74.2	81	104	5	8	7	2.5
KS82C2338	25	3298	76.6	79	113	25	8	6	2
RL845472	31	3297	76.8	81	115	0	8	6	1
NE82533	26	3294	77.8	74	120	5	8	6	3.5
NE84557	27	3177	76.8	89	117	0	8	7	2
KS84HW196	24	3171	76.7	74	114	15	8	8	2
NA-W84-229	40	3170	75.9	69	112	10	8	6	3.5
IL80-1251	44	3136	75.2	79	115	1	8	6	2
TX81V6582-2	10	3115	80.1	69	107	15	8	5	2
WH180001	39	3113	74.5	79	121	15	8	5	3
IL83-7439	43	3078	74.6	79	114	5	8	6	3
C113996	2	2910	76.8	91	120	35	8	6	2.5
C117826	3	2770	73.3	71	117	20	8	7	2.5
XW141	34	2699	71.3	69	112	10	8	6	4
C082009	20	2565	77	81	120	15	8	7	2
C11442	1	1343	75.4	102	127	35	8	6	3
MEAN									
LSD(.05)		3461							
		442							

STILLWATER
OKLAHOMA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1 :	: BYD : : VIRUS : : 0-9 :
TX81V6607-2	15	4089	78.7	81	119	4
OK84343	4	4083	79.5	85	124	4
TX84V1317	14	4001	79.1	81	121	7
OK84287	6	3976	80	89	120	3
RL844677	30	3960	81.3	97	122	6
TXGH10989	9	3868	76.8	87	120	4
CO830034	22	3861	79.9	100	123	5
OK84286	5	3843	80	86	120	5
XW161	35	3814	79.1	78	117	3
WH180001	39	3784	78	98	125	5
TX84V1736	16	3780	77.4	82	118	6
AGC-113	33	3768	77.1	84	125	5
TX84V1336	12	3752	74.3	86	118	6
XH685	37	3744	77.4	94	121	5
OK86215	8	3730	77.5	84	118	5
XH675	36	3691	77.7	97	121	4
TX86A7041	17	3608	77	82	125	6
TX81V6582-2	10	3587	78.7	78	117	6
IL80-1251	44	3574	78	81	127	6
CO830027	21	3571	80.1	96	121	6
TXGH13622	13	3540	77.1	91	119	4
OK86197	7	3510	76.1	93	119	5
NE83407	28	3497	78.9	82	124	4
TX87HA1	45	3427	76.5	90	120	6
Bounty-122	38	3423	76	90	120	5
NA-W81-162-W	42	3336	79.3	83	122	6
KS82C2338	25	3316	78.7	88	118	6
NE84557	27	3289	82	94	127	6
TXGH10563B	11	3258	74.2	88	117	6
NE82656	29	3251	78.2	79	127	6
NA-W84-229	40	3208	77.5	80	123	7
KS84HW196	24	3199	78.3	88	122	6
IL83-7439	43	3124	79.5	88	117	6
CO82009	20	3070	81.8	88	117	6
TX86V1109	18	3058	76.9	88	117	6
TX86V1110	19	3036	75.7	88	117	6
NA-W83-256	41	3029	79.6	88	117	6
CI17826	3	2937	74.9	88	117	6
AGC-112	32	2787	75.2	88	117	6
CI13996	2	2692	79.3	88	117	6
RL845472	31	2651	79.3	88	117	6
CO830014	23	2475	78.2	88	117	6
NE82533	26	2231	78.8	88	117	6
CI1442	1	1779	79.1	88	117	6
XW141	34	1766	76.4	88	117	6
MEAN		3355				
LSD(.05)		359				
C.V.		6.5				

LAHOMA
OKLAHOMA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD : KG/HA	: VOLUME : WEIGHT : KG/HL	: PLANT : HEIGHT : CM	: LODGING : % :
XW161	35	5482	78	93	0
OK84343	4	5351	77.8	92	0
TX84V1336	12	5217	77.3	91	3
TX81V6607-2	15	5115	81	91	5
TX84V1317	14	5064	78.9	88	20
OK86215	8	4987	77.5	94	0
TX84V1736	16	4946	78.4	88	23
XH685	37	4899	75.7	105	0
NA-W84-229	40	4847	75.3	92	0
TX86A7041	17	4813	73.8	92	0
RL844677	30	4763	77	104	0
TX81V6582-2	10	4760	78.8	85	2
OK84286	5	4743	79.5	98	0
TX86V1110	19	4740	76.9	106	27
NA-W81-162-W	42	4729	77.7	91	0
OK84287	6	4704	79.1	98	0
KS82C2338	25	4659	79.2	95	0
WH180001	39	4578	74.3	102	0
C0830027	21	4526	79.5	103	25
TXGH10989	9	4478	76.5	93	32
TX86V1109	18	4388	77.4	104	27
IL80-1251	44	4374	72.9	95	0
XH675	36	4363	75.6	104	0
AGC-112	32	4324	75.1	91	0
NE82656	29	4318	74.4	94	0
RL845472	31	4286	77.8	101	0
TXGH105638	11	4218	75.9	99	0
NE83407	28	4195	75.6	98	0
Bounty-122	38	4186	74	94	0
TX87HA1	45	4177	76.2	103	0
XW141	34	4166	72	89	0
NA-W83-256	41	4143	74.3	101	2
C0830014	23	4080	78.7	117	0
OK86197	7	4064	76.5	103	15
TXGH13622	13	3961	76.9	95	5
KS84HW196	24	3956	78.9	97	10
NE84557	27	3927	80.5	104	2
CI17826	3	3816	75.1	99	0
C0830034	22	3784	77.1	106	10
IL83-7439	43	3617	78.2	115	13
C082009	20	3560	78.3	109	5
AGC-113	33	3474	71.9	95	25
CI13996	2	3458	78.7	110	10
NE82533	26	3314	76.2	94	0
CI1442	1	1770	76.8	106	27
MEAN		4340			
LSD(.05)		364			
C.V.		5.1			

ALTUS
OKLAHOMA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :
OK84343	4	4086	79.9	83
XW161	35	4049	79.3	74
WH180001	39	3564	75.1	97
XH685	37	3547	75.1	99
NA-W81-162-W	42	3536	75.9	77
TX86V1110	19	3508	75.7	91
TX84V1336	12	3501	79.3	75
XW141	34	3501	74	81
TX86V1109	18	3497	76.4	94
TX84V1317	14	3488	80.9	74
NE83407	28	3444	74	83
TX86A7041	17	3432	73.1	85
NE82656	29	3415	74.6	89
RL844677	30	3378	74.8	99
XH675	36	3371	75.7	97
OK84287	6	3363	80.5	83
OK84286	5	3326	80.5	82
NA-W83-256	41	3296	73.9	87
Bounty-122	38	3290	74.8	86
NA-W84-229	40	3289	78.3	85
AGC-112	32	3277	73.8	84
TX87HA1	45	3270	75.6	86
TXGH10989	9	3266	76.9	84
TX84V1736	16	3259	79.2	79
RL845472	31	3235	78.3	94
IL83-7439	43	3222	77.9	96
IL80-1251	44	3189	76.1	90
TX81V6582-2	10	3160	80.2	76
TX81V6607-2	15	3158	82.8	75
OK86197	7	3143	78.4	84
TXGH10563B	11	3137	75.6	78
KS82C2338	25	3106	79.5	86
OK86215	8	3100	78.7	83
AGC-113	33	3096	73.3	90
KS84HW196	24	3081	79.2	82
NE84557	27	3020	77.1	97
TXGH13622	13	3019	78.6	80
C0830014	23	2973	78.2	99
CI17826	3	2897	75.3	84
CI13996	2	2842	77.9	105
C0830034	22	2820	76.6	96
C0830027	21	2798	79.6	93
NE82533	26	2554	77.8	91
C082009	20	2472	76.6	99
CI1442	1	1680	78.3	98

MEAN	3215
LSD(.05)	375
C.V.	7.1

GOODWELL
OKLAHOMA
THREE REPLICATIONS

C. I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1 :
OK84286	5	5098	75.3	102	133
XW161	35	4805	74.6	86	132
OK86215	8	4785	74.2	97	133
OK84287	6	4708	74.2	102	134
XW141	34	4699	70.4	89	134
OK84343	4	4664	73.9	98	135
TX81V6582-2	10	4657	76.2	89	132
TX84V1317	14	4441	73.9	91	133
TXGH10563B	11	4413	71.1	102	132
TX84V1736	16	4403	73	91	133
RL845472	31	4362	74.4	109	136
NA-W83-256	41	4354	69	99	136
TX84V1336	12	4346	72.4	99	133
XH675	36	4292	71.2	108	133
NA-W81-162-W	42	4263	72	93	135
AGC-112	32	4207	69.5	99	133
TX81V6607-2	15	4176	75.5	92	133
IL80-1251	44	4176	68.5	104	136
TX87HA1	45	4135	70.8	104	133
TX86A7041	17	4134	67.7	95	136
OK86197	7	4122	73.8	104	133
NE82656	29	4113	69.8	107	137
XH685	37	4092	72	109	133
KS82C2338	25	4091	74.8	100	133
TXGH10989	9	4020	71	97	134
WH180001	39	4013	68.8	107	135
NE83407	28	3953	67.9	101	137
TX86V1110	19	3952	71.1	99	133
NA-W84-229	40	3922	69.9	101	135
RL844677	30	3913	72.1	110	136
NE84557	27	3887	74.7	106	138
TX86V1109	18	3873	73	101	133
Bounty-122	38	3864	68	103	135
AGC-113	33	3808	66.6	106	137
KS84HW196	24	3802	75.6	100	133
C0830027	21	3790	73.1	108	133
IL83-7439	43	3697	73.8	107	135
TXGH13622	13	3684	72.4	99	133
NE82533	26	3593	72.1	107	138
CI13996	2	3575	75.6	104	136
C0830014	23	3553	73.8	114	135
C082009	20	3504	72.8	104	137
CI17826	3	3436	69.3	102	133
C0830034	22	3392	70.6	107	137
CI1442	1	2592	71.7	115	140
MEAN		4075			
LSD(.05)		555			
C.V.		8.3			

HUTCHINSON
KANSAS
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:
TX81V6582-2	10	2979	66.7	74	137
XW161	35	2511	63.3	75	135
TX81V6607-2	15	2499	68.2	75	136
AGC-112	32	2273	61.9	80	136
TX87HA1	45	2247	61.8	84	136
OK86215	8	2130	63.1	78	133
TXGH10563B	11	2106	60	80	135
OK86197	7	2082	63.6	75	133
KS82C2338	25	2011	67.1	75	135
TXGH10989	9	2003	59.7	76	135
TXGH13622	13	1945	62.8	78	136
TX86V1109	18	1929	61.3	81	135
TX84V1736	16	1820	60.4	70	135
XH675	36	1804	59	79	137
OK84343	4	1802	62.7	77	131
OK84286	5	1727	59.1	75	132
NE82656	29	1678	58.6	74	135
RL844677	30	1647	59.5	79	135
TX86V1110	19	1642	58.4	78	134
TX84V1336	12	1607	62.2	75	133
XW141	34	1580	53.5	72	135
KS84HW196	24	1578	63.3	72	137
IL80-1251	44	1559	53.9	75	135
C0830027	21	1545	61.9	82	135
TX84V1317	14	1508	60.2	77	137
XH685	37	1496	57.4	75	137
OK84287	6	1481	60.2	68	133
RL845472	31	1341	61.7	73	136
NA-W81-162-W	42	1331	58.3	69	135
NA-W83-256	41	1300	58.3	68	134
Bounty-122	38	1232	53.3	71	135
C082009	20	1208	59.1		
WH180001	39	1186	57.9		
NA-W84-229	40	1186	57		
C0830014	23	1117	6		
NE84557	27	1058	6		
C0830034	22	1039	6		
NE83407	28	935	6		
IL83-7439	43	925	6		
CI13996	2	894	6		
AGC-113	33	820	6		
CI17826	3	819	6		
NE82533	26	704	6		
TX86A7041	17	604	6		
CI1442	1	510	6		
MEAN		1542			
LSD(.05)		445			
C.V.		17.7			

MANHATTAN

KANSAS

THREE REPLICATIONS

C. I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1	: LEAF RUST SEV. %	: RESP: 0-9:
TXGH13622	13	4675	81.8	80	131	70	8
RL844677	30	4651	82.2	87	133	15	3
XH685	37	4637	78.9	82	131	50	8
TX84V1317	14	4601	80.6	73	131	20	8
XW161	35	4505	81	67	129	10	3
OK86215	8	4391	80.9	74	130	50	8
NA-W83-256	41	4382	79.5	79	131	70	8
NA-W81-162-W	42	4338	82	71	132	30	8
XW141	34	4311	78.8	72	133	20	3
TX87HA1	45	4246	80.7	91	130	15	8
TX84V1336	12	4236	80.2	76	131	30	7
NE82656	29	4223	78.4	75	135	15	3
AGC-113	33	4215	77.7	74	134	70	8
XH675	36	4202	79.6	81	132	50	8
IL80-1251	44	4155	80.6	74	134	30	8
TX81V6607-2	15	4123	83.5	69	131	15	7
TXGH10563B	11	4104	78.8	78	130	60	8
TX81V6582-2	10	4043	81.7	71	130	50	8
WH180001	39	4002	79.4	79	133	30	3
TX86A7041	17	3991	78.1	68	132	10	3
TX84V1736	16	3990	81.3	70	129	40	8
NA-W84-229	40	3958	80	73	132	30	7
AGC-112	32	3936	79	79	130	70	8
RL845472	31	3912	80.8	81	132	20	8
NE83407	28	3903	77.3	72	133	80	8
OK86197	7	3890	80.9	78	131	60	8
NE84557	27	3884	81.7	87	134	25	8
OK84343	4	3866	79.7	70	133	30	7
C0830014	23	3852	79.5	67	131	70	8
KS84HW196	24	3844	80.8	76	131	70	8
NE82533	26	3840	80.8	80	134	70	8
TXGH10989	9	3822	78.7	63	133	70	8
TX86V1109	18	3807	79.1	87	132	10	3
TX86V1110	19	3777	78	84	131	10	3
CI17826	3	3762	77.9	77	132	80	8
C0830034	22	3704	80.6	78	135	80	8
KS82C2338	25	3692	81.4	79	130	80	8
IL83-7439	43	3656	80.4	85	133	15	8
C0830027	21	3526	81.9	77	132	30	3
OK84286	5	3451	81.3	67	132	60	8
CI13996	2	3389	80.9	90	133	70	8
C082009	20	3144	80.6	76	135	40	8
OK84287	6	3112	80.3	68	132	60	8
Bounty-122	38	3006	77	73	132	80	8
CI1442	1	2792	77.8	83	139	70	8
MEAN		3945					
LSD(.05)		566					
C.V.		8.8					

HAYS
KANSAS
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD : KG/HA	: VOLUME : WEIGHT : KG/HL	: PLANT : HEIGHT : CM	: DAYS TO : HEADING : FROM 1/1:
TXGH13622	13	2712	79.5	61	134
TX81V6582-2	10	2641	82.1	55	132
TXGH105638	11	2609	78.5	57	133
TX81V6607-2	15	2569	81.6	53	135
TXGH10989	9	2551	79.5	60	134
OK84343	4	2547	78.2	59	135
CO830034	22	2517	79.3	64	138
RL844677	30	2421	80.9	62	136
XW161	35	2419	79.1	53	131
KS84HW196	24	2401	81	61	132
TX87HA1	45	2383	79	58	132
TX84V1336	12	2349	79.6	54	135
CO830014	23	2340	78	63	135
NE83407	28	2336	76.2	59	137
CO830027	21	2327	81.4	58	136
NA-W83-256	41	2291	76.6	58	135
XH685	37	2287	78	61	135
AGC-112	32	2284	77.7	56	133
TX86V1109	18	2266	76.9	64	136
TX84V1317	14	2257	80.7	55	135
CI17826	3	2235	78	54	134
NA-W84-229	40	2233	77.3	54	136
IL80-1251	44	2233	78.9	59	136
OK84286	5	2215	79.1	54	135
RL845472	31	2215	79.2	56	136
OK86215	8	2201	79.2	57	133
Bounty-122	38	2201	76.2	57	134
KS82C2338	25	2186	81.4	59	132
XH675	36	2174	77.8	59	135
WH180001	39	2154	77.5	62	137
OK84287	6	2132	78.9	52	136
NE82533	26	2121	76.4	57	139
NA-W81-162-W	42	2118	77.8	50	135
IL83-7439	43	2107	77.5	59	135
AGC-113	33	2083	77.4	55	139
TX86V1110	19	2076	74.8	62	135
TX84V1736	16	2067	80.2	49	134
CI13996	2	2047	78	66	136
NE82656	29	2042	76.2	56	138
NE84557	27	2038	77.7	59	138
XW141	34	2022	72.8	51	139
OK86197	7	2009	79.7	58	132
TX86A7041	17	1993	75	54	138
CO82009	20	1883	76.4	57	138
KS87H66	46	1775	78.1	47	135
CI1442	1	1397	74.2	71	142
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MEAN		2227			
LSD(.05)		427			
C.V.		11.7			

GARDEN CITY
KANSAS
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1:
TXGH13622	13	3244	78.9	62	137
XH675	36	3219	76.2	62	137
AGC-112	32	3199	77	60	137
TXGH10563B	11	3167	76.1	58	136
TX81V6607-2	15	3158	81.2	57	138
TX87HA1	45	3042	77.7	63	137
TXGH10989	9	2982	77.5	60	138
KS82C2338	25	2977	78.1	60	138
TX84V1317	14	2874	78.4	58	137
C0830034	22	2860	77.8	58	140
C0830027	21	2840	78.6	65	137
OK84286	5	2831	77.6	62	137
C082009	20	2825	78.4	60	141
TX86V1109	18	2820	75.9	65	138
TX81V6582-2	10	2813	80.2	58	137
NA-W83-256	41	2802	75.6	60	138
RL844677	30	2795	77	60	139
AGC-113	33	2766	73.9	55	140
XH685	37	2739	76.5	58	138
NE82533	26	2733	75.9	60	139
OK84287	6	2706	78.2	60	137
OK86215	8	2684	77.6	62	137
RL845472	31	2677	77.9	58	138
OK86197	7	2659	77.2	60	137
TX86V1110	19	2641	74.9	62	138
NE82656	29	2639	74.3	57	139
CI17826	3	2621	76.6	57	137
TX84V1736	16	2596	76.6	57	136
NE83407	28	2556	73.4	55	140
CI13996	2	2554	78.2	68	138
IL80-1251	44	2533	77	57	139
KS84HW196	24	2529	77.9	62	137
XW141	34	2498	75	53	138
C0830014	23	2477	78.6	68	137
NE84557	27	2455	77.1	60	140
IL83-7439	43	2453	75.4	52	141
XW161	35	2399	75.7	53	137
NA-W81-162-W	42	2397	77.2	53	140
Bounty-122	38	2392	75.1	60	138
OK84343	4	2385	76.7	57	140
NA-W84-229	40	2368	75.9	53	140
TX84V1336	12	2345	77.4	55	137
WH180001	39	2280	76.1	62	138
TX86A7041	17	2260	71.8	55	139
CI1442	1	1924	75	70	144
MEAN		2683			
LSD(.05)		377			
C.V.		8.6			

AKRON
COLORADO
THREE REPLICATIONS

C. I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL
TXGH13622	13	1835	65.3
AGC-112	32	1822	69.6
OK84343	4	1782	70.3
NE82656	29	1750	66.5
TXGH10563B	11	1699	64.4
TXGH10989	9	1649	66.2
RL845472	31	1643	67.8
CI17826	3	1582	63.1
NE84557	27	1568	72.7
TX87HA1	45	1547	65.3
RL844677	30	1534	65
TX81V6607-2	15	1508	68.4
AGC-113	33	1493	63.7
NE82533	26	1458	65.9
TX84V1736	16	1447	64.7
IL83-7439	43	1434	71.2
TX84V1336	12	1423	63.4
OK84286	5	1416	68.1
KS84HW196	24	1407	69.9
KS82C2338	25	1400	65.6
NE83407	28	1393	59.1
XH675	36	1378	64.7
TX84V1317	14	1325	67.8
OK86215	8	1315	66.2
XW161	35	1266	63.1
Bounty-122	38	1233	60
WH180001	39	1228	64.1
NA-W81-162-W	42	1221	63.4
OK86197	7	1217	68.4
C0830027	21	1205	69.9
CI13996	2	1203	69.3
NA-W83-256	41	1198	64.4
TX81V6582-2	10	1194	65.6
OK84287	6	1193	69
IL80-1251	44	1192	65.6
C082009	20	1179	68.4
XW141	34	1141	58.2
C0830034	22	1124	65.6
NA-W84-229	40	1122	69.3
XH685	37	1113	59.1
TX86A7041	17	1085	59.1
TX86V1110	19	1044	66.5
TX86V1109	18	987	.
CI1442	1	832	71.5
C0830014	23	791	69.3
MEAN		1346	
LSD(.05)		459	
C.V.		20.9	

BURLINGTON
COLORADO
THREE REPLICATIONS

C. I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM
AGC-112	32	3175	71.2	84
TX84V1336	12	3122	72.4	79
KS84HW196	24	3025	74.3	81
RL845472	31	2968	76.1	89
KS82C2338	25	2964	73.3	79
OK86215	8	2932	71.5	79
OK84343	4	2873	72.4	79
TX87HA1	45	2851	72.4	89
OK84287	6	2841	72.4	84
NE82656	29	2820	68.1	91
XH685	37	2819	71.8	94
TXGH10563B	11	2817	70.3	84
C0830027	21	2786	74	91
TX81V6582-2	10	2784	73	79
OK84286	5	2764	74	84
RL844677	30	2748	71.2	99
TXGH13622	13	2715	71.5	86
IL80-1251	44	2698	72.4	84
TX84V1317	14	2693	73.7	76
NE82533	26	2686	70.9	81
TX81V6607-2	15	2669	75.2	79
NA-W84-229	40	2649	74.9	81
XW161	35	2647	70.6	69
TX86V1110	19	2635	70.6	91
CI13996	2	2630	74.3	112
TXGH10989	9	2629	69.9	84
WH180001	39	2621	72.4	84
OK86197	7	2619	71.8	81
TX86V1109	18	2577	70.9	91
NE84557	27	2550	72.4	99
NA-W83-256	41	2526	71.5	84
AGC-113	33	2488	68.1	94
NE83407	28	2451	68.7	81
IL83-7439	43	2427	72.7	89
CI17826	3	2396	69.6	81
C0830014	23	2378	72.7	107
TX86A7041	17	2371	69.9	74
NA-W81-162-W	42	2363	73	69
XH675	36	2309	69.6	94
C082009	20	2230	71.8	107
C0830034	22	2001	69	94
CI1442	1	1888	67.5	117
Bounty-122	38	1873	68.1	84
XW141	34	1821	67.5	76
TX84V1736	16	1696	73	76
MEAN		2589		
LSD(.05)		585		
C.V.		13.8		

JULESBURG
COLORADO
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :
RL845472	31	2254	69.6	81
KS82C2338	25	2088	68.1	79
NE82656	29	2078	64.7	84
TX87HA1	45	2016	68.1	89
NE84557	27	2006	66.5	99
WH180001	39	1980	65.9	99
AGC-112	32	1921	67.5	81
CI13996	2	1866	67.8	94
NE82533	26	1733	63.1	91
IL80-1251	44	1732	66.2	89
CI17826	3	1679	63.1	76
OK86197	7	1649	65.3	76
NE83407	28	1577	61.6	84
TXGH13622	13	1567	61	79
RL844677	30	1550	67.8	97
TXGH105638	11	1538	63.7	84
C0830034	22	1521	62.2	91
NA-W81-162-W	42	1491	66.8	74
XH685	37	1485	62.5	89
NA-W83-256	41	1485	64.7	91
OK86215	8	1473	62.5	74
OK84343	4	1449	65.3	79
XH675	36	1434	65.6	84
C0830014	23	1408	60	81
XW161	35	1337	61.9	69
TX81V6607-2	15	1320	68.1	71
IL83-7439	43	1290	66.2	102
TX86V1109	18	1280	63.1	97
C082009	20	1273	68.7	89
TX81V6582-2	10	1260	66.2	61
TX86V1110	19	1253	64.7	91
KS84HW196	24	1234	66.2	74
AGC-113	33	1210	59.4	89
Bounty-122	38	1198	58.8	84
NA-W84-229	40	1196	67.2	74
TX84V1736	16	1139	65.9	58
OK84286	5	1081	64.4	76
TX84V1317	14	1057	65	74
TX84V1336	12	1043	64.4	69
OK84287	6	1042	62.8	71
XW141	34	990	59.4	71
TXGH10989	9	980	61	64
C0830027	21	960	65.3	71
TX86A7041	17	936	55.4	71
CI1442	1	784	67.5	102
MEAN		1441		
LSD(.05)		548		
C.V.		23.3		

LINCOLN

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1	: LEAF RUST SEV.: % : 0-9:	: RESP:
AGC-112	32	4779	78.4	78	137	8	
TXGH13622	13	4721	83.7	75	136	8	
RL844677	30	4636	83.3	83	138	2	
XW161	35	4600	82.9	67	137	2	
TXGH10563B	11	4589	79.7	75	136	8	
TX87HA1	45	4562	81.8	79	138	8	
AGC-113	33	4472	81	79	139	8	
TX84V1317	14	4470	82.3	70	139	7	
OK86215	8	4434	80.8	79	137	2	
C0830034	22	4414	81.4	85	138	8	
TX86V1109	18	4389	81.4	86	137	2	
NA-W81-162-W	42	4380	82.7	70	137	8	
IL80-1251	44	4369	81.9	77	139	7	
NE84557	27	4360	82.4	82	139	8	
TX81V6582-2	10	4351	82.9	66	136	8	
XH685	37	4329	80.6	86	138	8	
IL83-7439	43	4320	80.9	85	137	7	
CI17826	3	4295	79.2	77	137	8	
OK86197	7	4232	81.4	75	137	8	
TX86A7041	17	4228	79.3	75	138	2	
TX81V6607-2	15	4178	84.2	69	138	5	
XH675	36	4154	80.5	86	138	8	
RL845472	31	4152	80.4	84	138	7	
C0830027	21	4109	84.4	81	138	5	
TX84V1336	12	4060	82.8	71	138	3	
NE83407	28	4006	79.1	73	139	8	
OK84286	5	3905	80.9	72	137	2	
NA-W84-229	40	3880	80.2	74	137	2	
OK84343	4	3849	79.2	68	139	5	
NA-W83-256	41	3838	80	75	138	7	
NE82656	29	3835	77.7	80	139	2	
OK84287	6	3824	80.9	70	137	2	
TXGH10989	9	3806	81.7	69	138	8	
CI13996	2	3719	82	91	138	8	
TX86V1110	19	3708	80.4	87	136	2	
WH180001	39	3679	80.9	81	137	3	
KS82C2338	25	3672	82.6	73	137	5	
KS84HW196	24	3665	81.5	73	137	8	
C0830014	23	3549	78.9	82	138	8	
NE82533	26	3490	81.7	80	139	8	
C082009	20	3217	82.4	83	140	7	
Bounty-122	38	3212	77.9	75	138	8	
TX84V1736	16	3174	83.6	71	137	5	
XW141	34	3120	78.3	67	137	2	
CI1442	1	2923	80.1	95	140	7	
MEAN		4037					
LSD(.05)		614					
C.V.		9.3					

CLAY CENTER
NEBRASKA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :
NE82656	29	3404	76.8	75
NE83407	28	3097	75.7	62
NE84557	27	2803	79.3	74
CI13996	2	2745	79.5	82
TXGH10563B	11	2734	77.1	66
AGC-112	32	2714	76.9	66
TXGH13622	13	2703	79.7	66
NE82533	26	2697	77.8	70
XH675	36	2669	77.8	71
RL844677	30	2642	79.9	69
TX84V1317	14	2641	80.9	64
NA-W83-256	41	2631	77	64
TX86A7041	17	2627	75.7	64
IL80-1251	44	2622	79.2	67
RL845472	31	2564	79.3	73
XW161	35	2558	78.7	60
XH685	37	2477	77.4	70
CI17826	3	2470	77.7	65
NA-W84-229	40	2428	77.8	63
KS82C2338	25	2425	79.5	64
OK86197	7	2340	80	63
C0830034	22	2292	79.6	68
IL83-7439	43	2265	77	65
CI1442	1	2208	75.3	90
C0830027	21	2194	80.2	65
C0830014	23	2131	78.6	70
OK86215	8	2104	78.4	63
TX87HA1	45	2078	78.8	64
TX84V1336	12	2067	79.3	63
C082009	20	2062	78.4	67
TX86V1109	18	2058	78.2	65
XW141	34	2040	76	59
AGC-113	33	2020	75.6	72
TX86V1110	19	1956	76.9	67
NA-W81-162-W	42	1945	80	58
OK84286	5	1923	79.2	59
Bounty-122	38	1821	75.1	60
TX81V6607-2	15	1770	82.2	57
TX81V6582-2	10	1749	81.5	60
WH180001	39	1723	76.6	67
OK84287	6	1706	79.6	56
TX84V1736	16	1640	79.5	61
KS84HW196	24	1473	80.9	63
OK84343	4	1277	77.1	60
TXGH10989	9	960	77	64
MEAN		2254		
LSD(.05)		625		
C.V.		17.0		

ALLIANCE

NEBRASKA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD : KG/HA	: VOLUME : WEIGHT : KG/HL
AGC-113	33	4925	72.5
AGC-112	32	4799	72.4
TX84V1736	16	4780	72.9
XH685	37	4778	73.5
WH180001	39	4764	73.9
TXGH10563B	11	4735	73.9
XH675	36	4690	72.9
CI17826	3	4666	73
TX87HA1	45	4623	76.8
TX81V6582-2	10	4616	77.4
IL80-1251	44	4606	73.7
NE83407	28	4555	70.6
NE82656	29	4552	71.5
TX84V1317	14	4500	74.8
TXGH13622	13	4457	75.2
NA-W83-256	41	4443	74.7
RL845472	31	4427	75.1
NA-W81-162-W	42	4380	76.9
OK86215	8	4376	73.5
NE82533	26	4374	77.4
KS82C2338	25	4369	75.1
XW161	35	4337	73.1
TX86A7041	17	4335	69
NA-W84-229	40	4327	75.5
TX86V1110	19	4314	74.4
TX86V1109	18	4261	74.3
Bounty-122	38	4224	72.2
XW141	34	4216	72
OK86197	7	4182	74.7
OK84286	5	4181	73.8
RL844677	30	4167	71
C0830027	21	4163	73.5
C0830034	22	4162	70.7
KS84HW196	24	4145	74.4
IL83-7439	43	4096	77.4
CI13996	2	4091	74.4
NE84557	27	4086	78.4
C082009	20	4015	72.6
TX84V1336	12	3944	73.5
TXGH10989	9	3893	74.2
TX81V6607-2	15	3891	76.8
OK84343	4	3862	76.1
OK84287	6	3750	73.9
C0830014	23	3452	75.3
CI1442	1	3041	73.4
MEAN		4301	
LSD(.05)		482	
C.V.		6.9	

BROOKINGS
S. DAKOTA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1 :
NA-W83-256	41	2662	77.5	62	150
XH675	36	2341	77.5	65	151
CO830034	22	2313	76	63	151
NE83407	28	2238	76.9	56	151
OK84287	6	2199	80.2	58	150
NE82656	29	2178	75.7	64	150
AGC-113	33	2157	77.3	63	152
IL83-7439	43	2130	77.9	62	151
TX86V1110	19	2093	77.1	64	151
TX81V6607-2	15	2045	82.8	58	151
OK84286	5	1973	76.6	54	150
OK86215	8	1970	76.9	67	151
TX84V1336	12	1963	79.1	54	151
NE84557	27	1902	79.7	62	150
NE82533	26	1877	79.3	65	151
TX87HA1	45	1874	78.8	65	150
NA-W81-162-W	42	1863	79.7	58	150
XH685	37	1826	75.5	66	151
OK86197	7	1813	78.9	59	151
TX81V6582-2	10	1813	78	60	151
XW161	35	1807	77.1	52	151
CO830027	21	1794	80.2	68	151
NA-W84-229	40	1748	76	58	151
TX86A7041	17	1723	76.6	57	151
AGC-112	32	1698	76	58	150
CI17826	3	1692	76.2	55	150
CI13996	2	1691	77.9	68	149
RL844677	30	1690	79.5	65	150
KS82C2338	25	1657	79.5	62	151
RL845472	31	1608	78.6	61	150
TX86V1109	18	1600	75.7	59	151
TXGH13622	13	1592	76.9	51	151
TXGH10563B	11	1572	78.2	57	151
IL80-1251	44	1567	76.9	60	151
WH180001	39	1555	77.3	62	151
KS84HW196	24	1484	81.3	58	150
TX84V1317	14	1445	80		
CO82009	20	1361	77		
TX84V1736	16	1345			
OK84343	4	1267			
Bounty-122	38	1253			
CO830014	23	1186			
CI1442	1	1140			
TXGH10989	9	1090			
XW141	34	1042			
MEAN		1752			
LSD(.05)		548			
C.V.		19.2			

PRESHO

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1:
TXGH13622	13	2460	70.4	55	148
AGC-112	32	2328	70.6	62	147
TXGH10563B	11	2154	69.5	58	148
CI13996	2	2095	69.7	64	148
OK86215	8	2082	70	57	147
TX81V6607-2	15	2074	74.2	54	148
NE84557	27	2047	66.4	58	149
NA-W83-256	41	2042	68.9	60	149
IL80-1251	44	2003	68.8	58	149
NA-W81-162-W	42	2001	69.1	53	149
CI17826	3	1974	66.9	53	148
RL845472	31	1966	71.1	57	150
TX86V1109	18	1921	69.5	58	148
XH675	36	1911	70.2	61	148
NE83407	28	1902	69.5	58	150
NE82533	26	1899	69.3	61	150
OK86197	7	1891	71.1	54	147
RL844677	30	1880	67.5	60	151
TX81V6582-2	10	1839	67.3	59	150
TX87HA1	45	1837	71.5	61	147
OK84286	5	1794	67.8	55	149
IL83-7439	43	1791	66.8	53	150
NE82656	29	1779	67.1	61	150
TX84V1336	12	1725	67.5	49	149
KS82C2338	25	1723	69.3	59	149
C0830034	22	1704	68.4	58	150
C0830027	21	1689	71.5	58	149
TX84V1317	14	1677	69.8	52	149
WH180001	39	1660	68.8	58	150
NA-W84-229	40	1636	68.2	52	151
C082009	20	1614	69.3	52	150
TXGH10989	9	1610	68.8	54	150
KS84HW196	24	1608	71.5	56	147
TX86V1110	19	1592	60	58	148
XH685	37	1569	68.2	60	149
C0830014	23	1560	68.8	62	148
OK84287	6	1538	70.2	53	148
TX86A7041	17	1510	63.1	56	150
AGC-113	33	1481	62.8	56	151
XW141	34	1423	64.6	58	151
TX84V1736	16	1418	68.4	47	148
Bounty-122	38	1402	66.4	60	148
OK84343	4	1391	67.8	57	151
CI1442	1	1361	67.1	69	155
XW161	35	1343	68.2	50	148
MEAN		1776			
LSD(.05)		443			
C.V.		15.3			

CASSELTON
N. DAKOTA
THREE REPLICATIONS

C.I. OR SEL. NO.	: : NO. :	: WINTER : : ENTRY: SURVIVAL : : % :
CI1442	1	32
CI13996	2	32
CI17826	3	22
OK84343	4	2
OK84286	5	12
OK84287	6	12
OK86197	7	12
OK86215	8	12
TXGH10989	9	27
TX81V6582-2	10	7
TXGH10563B	11	28
TX84V1336	12	5
TXGH13622	13	12
TX84V1317	14	3
TX81V6607-2	15	0
TX84V1736	16	10
TX86A7041	17	10
TX86V1109	18	10
TX86V1110	19	18
CO82009	20	5
CO830027	21	0
CO830034	22	2
CO830014	23	2
KS84HW196	24	3
KS82C2338	25	5
NE82533	26	8
NE84557	27	12
NE83407	28	20
NE82656	29	35
RL844677	30	13
RL845472	31	18
AGC-112	32	55
AGC-113	33	33
XW141	34	32
XW161	35	3
XH675	36	5
XH685	37	17
Bounty-122	38	0
WH180001	39	2
NA-W84-229	40	2
NA-W83-256	41	8
NA-W81-162-W	42	3
IL83-7439	43	33
IL80-1251	44	25
TX87HA1	45	30

COLUMBIA
MISSOURI
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : KG/HA :	: VOLUME : WEIGHT : KG/HL :	: PLANT : HEIGHT : CM :	: DAYS TO : HEADING : FROM 1/1 :	: LEAF RUST: : SEV.: RESP: : % : 0-9:	: BYD : VIRUS : 0-9 :
TXGH13622	13	6424	77.1	91	131	40	7
XH675	36	6413	74.9	92	132	12	5
TX87HA1	45	6133	77.4	91	131	13	7
OK86215	8	6056	76.1	89	130	10	6
WH180001	39	6054	75.1	97	133	5	5
AGC-112	32	6020	75.2	88	131	50	8
TX81V6582-2	10	5993	76.8	83	130	7	8
XH685	37	5935	74	88	133	10	5
TX84V1317	14	5914	75.6	81	131	4	7
TXGH10989	9	5910	73.4	87	132	7	5
IL83-7439	43	5906	75.3	101	134	.	7
OK84286	5	5894	76.2	86	131	.	5
NA-W81-162-W	42	5861	76.8	84	131	7	7
RL844677	30	5810	75.9	86	135	4	5
RL845472	31	5810	76.4	94	134	5	5
TX81V6607-2	15	5689	76.9	81	131	4	6
OK84287	6	5636	76.6	88	130	2	5
OK86197	7	5578	75.3	91	129	17	7
IL80-1251	44	5570	74.3	88	136	2	6
XW161	35	5538	73.4	82	129	.	7
KS82C2338	25	5517	77.9	88	130	10	7
TX86V1109	18	5500	76	94	130	.	5
TX84V1336	12	5459	74	86	130	3	8
NA-W83-256	41	5443	74.2	88	134	4	5
NE83407	28	5439	73.3	83	134	5	5
C0830027	21	5276	77	90	131	5	6
NE84557	27	5270	76.6	98	137	4	5
TXGH10563B	11	5259	76.2	88	130	40	8
TX86A7041	17	5252	71.6	85	134	2	6
C0830034	22	5249	75.5	97	135	17	6
KS84HW196	24	5247	75.9	85	130	23	8
AGC-113	33	5245	72.1	91	135	23	7
TX84V1736	16	5205	76.8	78	129	15	8
OK84343	4	5181	74	83	134	.	6
NE82656	29	5149	72.6	85	136	.	5
TX86V1110	19	5026	75.9	93	129	.	5
Bounty-122	38	5026	73.7	87	131	10	8
NE82533	26	4960	75.2	93	136	8	5
CI17826	3	4923	75.6	89	133	43	8
XW141	34	4839	67.6	82	135	2	6
NA-W84-229	40	4777	74.4	84	133	4	6
C0830014	23	4770	76.2	104	131	10	6
CI13996	2	4271	72.1	105	136	23	6
C082009	20	4049	75.2	94	136	5	6
CI1442	1	3917	73.1	109	137	17	5
MEAN		5431					
LSD(.05)		1007					
C.V.		11.5					

AMES
IOWA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1 :	: DAYS TO : : RIPENING : : FROM 1/1 :	: LODGING : : % :	: WINTER : : SURVIVAL : : % :
NE82656	29	4351	75.3	86	142	174	1	97
TX87HA1	45	4344	76.8	82	139	175	0	90
IL80-1251	44	4295	76.5	80	141	174	0	92
AGC-113	33	4235	76.2	74	143	176	0	94
NE83407	28	4154	75.6	75	140	175	1	88
TX86V1110	19	4080	76.1	77	139	171	0	94
AGC-112	32	4013	73.4	76	139	174	0	89
IL83-7439	43	3878	77.4	73	143	173	1	94
TXGH13622	13	3847	76.5	72	141	176	0	69
RL845472	31	3766	77.4	82	141	174	0	93
CI13996	2	3753	76.8	92	142	174	6	94
TX86V1109	18	3688	75.9	76	139	171	0	96
NE82533	26	3528	76	80	143	176	1	77
XW161	35	3488	76.6	60	137	172	0	95
CI17826	3	3475	74.9	78	139	175	0	86
TX86A7041	17	3414	75.6	69	142	173	0	83
OK86215	8	3401	77.8	73	139	173	1	85
OK84286	5	3331	79.7	70	140	175	0	81
XH675	36	3250	76.6	76	140	176	0	77
RL844677	30	3203	78.6	80	142	176	2	73
TX84V1736	16	3170	79.3	64	139	172	2	73
XH685	37	3163	76.2	77	140	176	1	85
OK84287	6	3134	79.2	69	140	175	1	73
NA-W83-256	41	3022	76.1	70	141	175	1	81
TXGH105638	11	2975	74.3	73	140	174	1	69
CI1442	1	2948	76.5	98	148	179	9	93
NE84557	27	2921	79.1	80	145	177	1	45
C0830034	22	2878	78.3	78	144	177	0	60
OK86197	7	2851	78.2	70	141	173	0	59
TX84V1336	12	2627	76.9	63	140	174	0	55
XW141	34	2365	70	62	142	176	0	84
NA-W81-162-W	42	2365	78.8	58	142	176	2	47
KS82C2338	25	2183	78.9	69	140	174	0	47
C082009	20	2136	77.4	75	145	179	0	70
C0830027	21	2047	78.7	72	141	176	1	40
TX84V1317	14	1867	79.2	60	140	175	0	22
Bounty-122	38	1825	73.8	67	143	177	1	32
KS84HW196	24	1401	79.9	62	142	174	0	28
WH180001	39	1219	74.4	73	143	176	1	22
C0830014	23	1078	76.4	68	141	177	0	17
NA-W84-229	40	1029	77.5	56	143	178	0	12
TX81V6582-2	10	726	.	58	143	176	0	12
OK84343	4	460	.	63	145	176	0	5
TXGH10989	9	448	.	65	145	178	0	4
TX81V6607-2	15	195	.	48	145	175	0	2

MEAN	2812
LSD(.05)	1087
C.V.	23.7

URBANA
ILLINOIS
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1:	: WINTER : : SURVIVAL : : % :
TX87HA1	45	5070	75.3	87	136	100
TXGH13622	13	4881	76.5	87	135	100
TXGH10563B	11	4801	74.2	81	136	100
OK86215	8	4795	76	82	135	100
TX86V1110	19	4707	74.8	85	135	100
NE83407	28	4700	73.9	85	138	100
OK84286	5	4695	77	82	136	100
TX86V1109	18	4641	75.3	92	136	100
RL844677	30	4591	75.5	94	138	100
AGC-112	32	4525	73.7	78	136	100
XW161	35	4518	74.7	75	136	100
OK84287	6	4515	77.8	80	136	100
IL80-1251	44	4488	76.2	90	139	100
IL83-7439	43	4476	77	91	140	100
CI17826	3	4472	73.9	80	136	100
NA-W83-256	41	4453	74.7	88	138	100
KS84HW196	24	4436	77.5	81	136	100
AGC-113	33	4403	74.4	89	139	100
TX84V1736	16	4361	76	74	135	100
C0830034	22	4354	74.8	90	140	100
TX84V1336	12	4350	75.7	76	135	100
NE82533	26	4348	75.8	91	139	100
NE84557	27	4318	76.5	96	141	100
OK84343	4	4291	73.9	78	138	100
TX84V1317	14	4254	76.4	76	135	100
XH675	36	4228	73.3	88	137	93
KS82C2338	25	4169	76.6	81	136	100
OK86197	7	4149	75.8	81	136	100
NE82656	29	4044	71.7	86	140	100
RL845472	31	4007	76.5	90	138	100
XH685	37	3991	72.7	90	137	100
NA-W81-162-W	42	3963	77.6	72	136	100
C0830027	21	3860	76.7	86	136	100
TX86A7041	17	3847	72.8	74	139	100
XW141	34	3691	71.3	79	139	100
C0830014	23	3663	74.4	91	137	100
CI13996	2	3553	75.4	97	141	100
WH180001	39	3426	72.9	84	139	100
C082009	20	3335	75.4	90	139	100
Bounty-122	38	3108	70.9	80	137	100
NA-W84-229	40	2837	72.8	72	138	100
CI1442	1	2626	71.2	98	142	100
TXGH10989	9	2598	72	69	137	45
TX81V6582-2	10	1953	74.5	58	137	33
TX81V6607-2	15	1128	75.4	59	138	8
MEAN		4036				
LSD(.05)		645				
C.V.		9.8				

LIND
WASHINGTON
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:
RL844677	30	2145	80.2	64	141
NA-W84-229	40	2069	79.9	58	139
NE84557	27	2049	79.3	66	141
TX84V1336	12	1997	81	60	137
WH180001	39	1997	77.1	64	140
C0830034	22	1984	79.3	56	141
XH685	37	1975	77.5	60	139
TX86A7041	17	1957	76.8	53	141
RL845472	31	1946	78.3	60	138
AGC-112	32	1941	78.2	58	138
TX84V1736	16	1907	79.2	51	137
NE82533	26	1901	78.6	59	140
CI17826	3	1887	79.1	52	138
C082009	20	1881	79.2	64	142
CI13996	2	1825	79.9	66	137
C0830014	23	1820	79.6	70	137
TXGH13622	13	1744	78.7	57	138
XH675	36	1740	76.9	60	140
AGC-113	33	1690	78	58	142
XW161	35	1688	80.2	55	137
TXGH10563B	11	1679	77.7	59	137
NE82656	29	1679	76.9	58	143
NA-W83-256	41	1632	76.5	56	141
IL83-7439	43	1630	77.4	55	138
TX86V1109	18	1592	77	61	138
KS82C2338	25	1592	79.6	59	137
TX81V6582-2	10	1584	80.5	56	138
KS84HW196	24	1567	79.9	57	137
C0830027	21	1558	79.3	60	141
TX81V6607-2	15	1547	80.1	52	139
Bounty-122	38	1547	76.2	63	140
OK86215	8	1482	77.1	52	138
NE83407	28	1439	77	56	142
CI1442	1	1437	78	68	146
IL80-1251	44	1436	76.1	61	141
TX84V1317	14	1403	79.7	57	138
OK84286	5	1374	76.9	58	142
NA-W81-162-W	42	1365	78.9	51	140
OK84343	4	1341	75.7	60	141
TX86V1110	19	1325	75.9	62	138
TX87HA1	45	1314	78.8	60	137
TXGH10989	9	1309	77.4	59	139
XW141	34	1298	77.3	53	142
OK86197	7	1121	77	53	139
OK84287	6	1085	76.8	57	142
MEAN		1655			
LSD(.05)		304			
C.V.		11.2			

ABERDEEN

IDAHO

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1 :	: DAYS TO : : RIPENING : : FROM 1/1 :	: LODGING : : 0-9 :	: STRAW : : STRENGTH : : 1-5 :
TX84V1336	12	6427	86	152	188	0	3
TXGH10563B	11	6143	92	154	189	3	3
AGC-113	33	5865	104	159	189	0	4
C0830034	22	5782	98	159	187	1	3
CI17826	3	5515	92	153	185	1	2
TX81V6607-2	15	5499	82	154	187	0	3
TX84V1317	14	5376	81	153	186	0	3
TXGH13622	13	5333	92	156	188	1	3
C0830027	21	5314	95	155	188	2	4
NA-W84-229	40	5214	81	157	186	1	1
WH180001	39	5210	96	157	185	0	3
NA-W83-256	41	5177	93	159	188	2	2
C082009	20	5135	104	157	189	1	2
XW161	35	5130	76	151	185	0	1
IL80-1251	44	5043	90	155	184	0	3
Bounty-122	38	4994	91	158	189	0	2
AGC-112	32	4973	86	155	185	1	2
XW141	34	4970	82	156	187	0	2
TX86V1110	19	4954	96	154	184	0	3
NE83407	28	4940	91	158	188	0	3
OK86215	8	4938	91	151	187	0	2
TX86V1109	18	4887	95	154	184	0	3
TX87HA1	45	4886	92	155	188	1	3
NA-W81-162-W	42	4851	82	156	199	0	2
TXGH10989	9	4831	86	152	186	1	3
TX86A7041	17	4791	82	159	186	1	3
IL83-7439	43	4771	93	156	186	0	1
XH675	36	4751	95	157	186	0	3
TX81V6582-2	10	4744	80	150	185	1	2
NE82533	26	4739	86	156	186	0	3
XH685	37	4683	94	156	186	1	3
RL845472	31	4607	91	155	186	2	4
KS82C2338	25	4585	87	155	185	0	3
NE84557	27	4575	94	156	183	0	2
TX84V1736	16	4534	76	151	199	1	2
OK84287	6	4503	88	155	188	0	2
RL844677	30	4468	103	159	189	0	3
OK84286	5	4446	84	155	186	1	3
OK84343	4	4431	81	156	185	0	2
C0830014	23	4411	109	156	185	1	2
CI13996	2	4393	112	155	186	4	5
NE82656	29	4367	92	159	187	1	3
CI1442	1	3894	105	161	190	5	5
OK86197	7	3782	85	151	184	0	3
KS84HW196	24	3323	89	153	198	1	2
MEAN		4893					
LSD(.05)		1112					
C.V.		13.9					

Table 2. Continued.

C.I. OR SEL. NO.	ENTRY NO.	LINCOLN NEBRASKA	CLAY CENTER NEBRASKA	ALLIANCE NEBRASKA	NEBRASKA STATE MEAN	AKRON COLORADO	BURLINGTON COLORADO	JULESBURG COLORADO	COLORADO STATE MEAN		
TXGH13622	13	4721	2	4457	15	1835	1	1567	14	2039	7
TXGHI05638	11	4589	5	4735	6	1699	5	1538	16	2018	9
AGC-112	32	4779	1	4799	2	1822	2	1921	7	2306	1
XH675	36	4154	22	4690	7	1378	22	1434	23	1707	30
TX84V1336	12	4060	25	3944	39	1423	17	1043	39	1863	18
XW161	35	4600	4	4337	22	1266	25	1337	25	1750	25
TX87HA1	45	4562	6	4623	9	1547	10	2016	4	2138	5
RL844677	30	4636	3	4167	31	1534	11	1550	15	1944	11
XH685	37	4329	16	4778	4	1113	40	1485	19	1805	22
OK86215	8	4434	9	4376	19	1315	24	1473	21	1907	13
TX84V1317	14	4470	8	4500	14	1325	23	1057	38	1692	32
IL80-1251	44	4369	13	4606	11	1192	35	1732	10	1874	17
OK84286	5	3905	27	4181	30	1416	18	1081	37	1754	23
NA-W83-256	41	3838	30	4443	16	1198	32	1485	19	1736	27
NE82656	29	3835	31	4552	13	1750	4	2078	3	2216	3
TX86A7041	17	4228	20	4335	23	1085	41	936	44	1464	41
TX81V6607-2	15	4178	21	3891	41	1508	12	1320	26	1832	19
NE83407	28	4006	26	4555	12	1393	21	1577	13	1807	21
C0830027	21	4109	24	4163	32	1205	30	960	43	1650	35
C0830034	22	4414	10	4162	33	1224	38	1521	17	1549	39
AGC-113	33	4472	7	4925	1	1493	13	1210	33	1731	28
C117826	3	4295	18	4666	8	1582	8	1679	11	1886	16
NA-W81-162-W	42	4380	12	4380	18	1221	28	1491	18	1692	33
RL845472	31	4152	23	4427	17	1643	7	2254	1	2289	2
TX81V6582-2	10	4351	15	4616	10	1194	33	1260	30	1746	26
OK84287	6	3824	32	3750	43	1393	34	1042	40	1692	31
TX84V1736	16	3174	43	4780	3	1447	15	1139	36	1427	43
KS82C2338	25	3672	37	4369	21	1400	20	2088	2	2151	4
TX86V1110	19	3708	35	4314	25	1044	42	1253	31	1644	36
NE84557	27	4360	14	4086	37	1568	9	2006	5	2041	6
TX86V1109	18	4389	11	4261	26	987	43	1280	28	1615	37
WH180001	39	3679	36	4764	5	1228	27	1980	6	1943	12
OK84343	4	3849	29	4362	42	1782	3	1449	22	2035	8
OK86197	7	4232	19	4182	29	1217	29	1649	12	1828	20
NA-W84-229	40	3880	28	4327	24	1122	39	1196	35	1656	34
IL83-7439	43	4320	17	4096	35	1434	16	1290	27	1717	29
NE82533	26	3490	40	4374	20	1458	14	1733	9	1959	10
TXGH10989	9	3806	33	3893	40	1649	6	980	42	1752	24
Bounty-122	38	3212	42	4224	27	1233	26	1198	34	1435	42
XW141	34	3120	44	4216	28	1141	37	990	41	1317	44
C113996	2	3719	34	4091	36	1203	31	1866	8	1900	14
KS84HW196	24	3665	38	4145	34	1407	19	1234	32	1889	15
C0830014	23	3549	39	3452	44	791	45	1408	24	1526	40
C082009	20	3217	41	4015	38	1179	36	1273	29	1561	38
C11442	1	2923	45	3041	45	832	44	784	45	1168	45

Table 2. Continued.

C.I. OR SEL. NO.	ENTRY NO.	HUTCHINSON*		HAYS KANSAS	MANHATTAN		GARDEN		KANSAS		BROOKINGS		PRESHO		SOUTH	
		KANSAS	KANSAS		KANSAS	KANSAS	KANSAS	CITY	STATE MEAN	S. DAKOTA	S. DAKOTA	S. DAKOTA	S. DAKOTA	S. DAKOTA	STATE MEAN	S. DAKOTA
TXGH13622	13	1945	11	2712	1	4675	1	3244	1	3544	1	1592	32	2460	1	2026
TXGH105638	11	2106	7	2609	3	4104	17	3167	4	3294	2	1572	33	2154	3	1863
AGC-112	32	2273	4	2284	18	3936	23	3199	3	3140	11	1698	25	2328	2	2013
XH675	36	1804	14	2174	29	4202	14	3219	2	3199	8	2341	2	1911	14	2126
TX84V1336	12	1607	20	2349	12	4236	11	2345	42	2977	17	1963	13	1725	24	1844
XW161	35	2511	2	2419	9	4505	5	2399	37	3108	13	1807	21	1343	45	1575
TX87HA1	45	2247	5	2383	11	4246	10	3042	6	3224	6	1874	16	1837	20	1855
RL844677	30	1647	18	2421	8	4651	2	2795	17	3289	3	1690	28	1880	18	1785
XH685	37	1496	26	2287	17	4637	3	2739	19	3221	7	1826	18	1569	35	1698
OK86215	8	2130	6	2201	26	4391	6	2684	22	3092	14	1970	12	2082	5	2026
TX84V1317	14	1508	25	2257	20	4601	4	2874	9	3244	5	1445	37	1677	28	1561
IL80-1251	44	1559	23	2233	23	4155	15	2533	31	2974	18	1567	34	2003	9	1785
OK84286	5	1727	16	2215	24	3451	40	2831	12	2832	35	1973	11	1794	21	1884
NA-W83-256	41	1300	30	2291	16	4382	7	2802	16	3159	10	2662	1	2042	8	2352
NE82656	29	1678	17	2042	39	4223	12	2639	26	2968	19	1779	23	1779	23	1979
TX86A7041	17	604	44	1993	43	3991	20	2260	44	2748	39	1723	24	1510	38	1616
TX81V6607-2	15	2499	3	2569	4	4123	16	3158	5	3283	4	2045	10	2074	6	2059
NE83407	28	935	38	2336	14	3903	25	2556	29	2932	26	2238	4	1902	15	2070
C0830027	21	1545	24	2327	15	3526	39	2840	11	2898	28	1794	22	1689	27	1741
C0830034	22	1039	37	2517	7	3704	36	2860	10	3027	15	2313	3	1704	26	2009
AGC-113	33	820	41	2083	35	4215	13	2766	18	3021	16	2157	7	1481	39	1819
CI17826	3	819	42	2235	21	3762	35	2621	27	2872	32	1692	26	1974	11	1833
NA-W81-162-W	42	1331	29	2118	33	4338	8	2397	38	2951	22	1863	17	2001	10	1932
RL845472	31	1341	28	2215	25	3912	24	2677	23	2935	24	1508	30	1966	12	1787
TX81V6582-2	10	2979	1	2641	2	4043	18	2813	15	3166	9	1813	19	1839	19	1826
OK84287	6	1481	27	2132	31	3112	43	2706	21	2650	42	2199	5	1538	37	1869
TX84V1736	16	1820	13	2067	37	3990	21	2596	28	2884	31	1345	39	1418	41	1382
K582C2338	25	2011	9	2186	28	3692	37	2977	8	2952	21	1657	29	1723	25	1690
TX86V1110	19	1642	19	2076	36	3777	34	2641	25	2831	36	2093	9	1592	34	1843
NE84557	27	1058	36	2038	40	3884	27	2455	35	2792	38	1902	14	2047	7	1975
TX86V1109	18	1929	12	2266	19	3807	33	2820	14	2964	20	1600	31	1921	13	1760
WH180001	39	1186	33	2154	30	4002	19	2280	43	2812	37	1555	35	1660	29	1608
OK84343	4	1802	15	2547	6	3866	28	2385	40	2932	25	1267	40	1391	43	1329
OK86197	7	2082	8	2009	42	3890	26	2659	24	2852	34	1813	20	1891	17	1852
NA-W84-229	40	1186	34	2233	22	3958	22	2368	41	2853	33	1748	23	1636	30	1692
IL83-7439	43	925	39	2107	34	3656	38	2453	36	2739	40	2130	8	1791	22	1961
NE82533	26	704	43	2121	32	3840	31	2733	20	2898	29	1877	15	1899	16	1888
TXGH10989	9	2003	10	2551	5	3822	32	2982	7	3118	12	1090	44	1610	32	1350
Bounty-122	38	1232	31	2201	26	3006	44	2392	39	2943	23	1042	45	1423	40	1232
XW141	34	1580	21	2022	41	4311	9	2498	33	2943	43	1691	27	2095	4	1893
CI13996	2	894	40	2047	38	3389	41	2554	30	2663	41	1691	27	2095	33	1546
K584HW196	24	1578	22	2401	10	3844	30	2529	32	2924	27	1484	36	1608	33	1373
C0830014	23	1117	35	2340	13	3852	29	2477	34	2890	30	1186	42	1560	36	1373
C082009	20	1208	32	1883	44	3144	42	2825	13	2617	43	1361	38	1614	31	1487
CI1442	1	510	45	1397	45	2792	45	1924	45	2038	45	1140	43	1361	44	1251

MEAN	1542	2237	3945	2683	2955	1752	1776	1764
LSD(.05)	445	429	566	377	423	548	443	525
C.V.	17.7	11.7	8.8	8.6	9.6	19.2	15.3	17.3

* Not included in state or regional averages.

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	ENTRY: STILLWATER : : NO. : OKLAHOMA :	ALTUS : : OKLAHOMA :	LAHOMA : : OKLAHOMA :	GOODWELL : : OKLAHOMA :	OKLAHOMA : : STATE MEAN :	COLUMBIA : : MISSOURI :	URBANA : : ILLINOIS :
13	3540 21	3019 37	3961 35	3684 38	3551 33	6424 1	4881 2
11	3258 29	3137 31	4218 27	4413 9	3757 24	5259 28	4801 3
32	2787 39	3277 21	4324 24	4207 16	3649 31	6020 6	4525 10
36	3691 16	3371 15	4363 23	4292 14	3929 16	6413 2	4228 26
12	3752 13	3501 7	5217 3	4346 13	4204 5	5459 23	4350 21
35	3814 9	4049 2	5482 1	4805 2	4538 2	5538 20	4518 11
45	3427 24	3270 22	4177 30	4135 19	3752 25	6133 3	5070 1
30	3960 5	3378 14	4763 11	3913 30	4003 12	5810 15	4591 9
37	3744 14	3547 4	4899 8	4092 23	4071 10	5935 8	3991 31
8	3730 15	3100 33	4987 6	4785 3	4151 7	6056 4	4795 4
14	4001 3	3488 10	5064 5	4441 8	4249 4	5914 9	4254 25
44	3574 19	3189 27	4374 22	4176 17	3828 18	5570 19	4488 13
5	3843 8	3326 17	4743 13	5098 1	4252 3	5894 12	4695 7
41	3029 37	3296 18	4143 32	4354 12	3705 27	5443 24	4453 16
29	3251 30	3415 13	4138 25	4113 22	3774 22	5149 35	4044 29
17	3608 17	3432 12	4813 10	4134 20	3997 13	5252 29	3847 34
15	4089 1	3158 29	5115 4	4176 17	4134 8	5689 15	1128 45
28	3497 23	3444 11	4195 28	3953 27	3772 23	5439 25	4700 6
21	3571 20	2798 42	4526 19	3790 36	3671 30	5276 26	3860 33
22	3861 7	2820 41	3784 39	3392 44	3464 38	5249 30	4354 20
33	3768 12	3096 34	3474 42	3808 34	3536 34	5245 32	4403 18
3	2937 38	2897 39	3816 38	3436 43	3272 40	4923 39	4472 15
42	3336 26	3536 5	4729 15	4263 15	3966 15	5861 13	3963 32
31	2651 41	3235 25	4286 26	4362 11	3633 32	5810 14	4007 30
10	3587 18	3160 28	4760 12	4657 7	4041 11	5993 7	1953 44
6	3976 4	3363 16	4704 16	4708 4	4188 6	5636 17	4515 12
16	3780 11	3259 24	4946 7	4403 10	4097 9	5205 33	4361 19
25	3316 27	3106 32	4659 17	4091 24	3793 21	5517 21	4169 27
19	3036 36	3508 6	4740 14	3952 28	3809 20	5026 37	4707 5
27	3289 28	3020 36	3927 37	3887 31	3531 36	5270 27	4318 23
18	3058 35	3497 9	4388 21	3873 32	3704 28	5500 22	4641 8
39	3784 10	3564 3	4578 18	4013 26	3985 14	6054 5	3426 38
4	4083 2	4086 1	5351 2	4664 6	4546 1	5181 34	4291 24
7	3510 22	3143 30	4064 34	4122 21	3709 26	5578 18	4149 28
40	3208 31	3289 20	4847 9	3922 29	3817 19	4777 41	2837 41
43	3124 33	3222 26	3617 40	3697 37	3415 39	5906 11	4476 14
26	2231 43	2554 43	3314 44	3593 39	2923 44	4960 38	4348 22
9	3868 6	3266 23	4478 20	4020 25	3908 17	5910 10	2598 43
38	3423 25	3290 19	4186 29	3864 33	3691 29	5026 36	3108 40
34	1766 45	3501 8	4166 31	4699 5	3533 35	4839 40	3691 35
2	2692 40	2842 40	3458 43	3575 40	3141 43	4271 43	3553 37
24	3199 32	3081 35	3956 36	3802 35	3509 37	5247 31	4436 17
23	2475 42	2973 38	4080 33	3553 41	3270 41	4770 42	3663 36
20	3070 34	2472 44	3560 41	3504 42	3152 42	4049 44	3335 39
1	1779 44	1680 45	1770 45	2592 45	1955 45	3917 45	2626 42
	2215	4340	4075	3746	5431	4036	

TABLE 22. Continued.

C.I. OR SEL. NO.	ENTRY: NO.	CLOVIS (IRR.)	CLOVIS NEW MEXICO	CLOVIS (DRY.)*	FARMINGTON NEW MEXICO	NEW MEXICO STATE MEAN	AMES IOWA	ABERDEEN IDAHO	LIND WASHINGTON	REGIONAL AVERAGE			
TXGH13622	13	7176	1	2922	3	6403	3847	5333	8	1744	17	3798	1
TXXGH10563B	11	7081	2	3257	1	6708	2975	6143	2	1679	21	3757	2
AGC-112	32	6835	3	2044	11	6328	4013	4973	17	1941	10	3730	3
XH675	36	5940	6	2456	6	6445	3250	4751	28	1740	18	3667	4
TX84V1336	12	5617	15	2069	10	6093	2627	6427	1	1997	4	3662	5
XW161	35	5691	12	678	45	5660	3488	5130	14	1688	20	3657	6
TX87HA1	45	5331	23	2970	2	6356	4344	4886	23	1314	41	3649	7
RL844677	30	5880	7	1342	33	6357	3203	4468	37	2145	1	3639	8
XH685	37	5042	30	1483	28	6092	3163	4683	31	1975	7	3598	9
OK86215	8	5483	17	1677	20	5300	3401	4938	21	1482	32	3590	10
TX84V1317	14	5739	11	2033	12	5978	1867	5376	7	1403	36	3587	11
IL80-1251	44	5095	29	1994	13	5582	4295	5043	15	1436	35	3507	12
OK84286	5	6326	5	1743	17	5722	3331	5043	18	1436	35	3507	13
NA-W83-256	41	5323	24	1578	24	5616	3022	5177	12	1632	23	3494	14
NE2656	29	4722	34	973	40	5264	4351	4367	42	1679	21	3449	15
TX86A7041	17	4407	38	1728	18	6207	3414	4791	26	1957	8	3443	16
TX81V6607-2	15	4870	32	1980	14	5587	195	5499	6	1547	30	3434	17
NE83407	28	4432	37	974	39	4753	4154	4940	20	1439	33	3425	18
C0830027	21	5841	9	1521	27	6315	2047	5314	9	1558	29	3424	19
C0830034	22	5236	26	1384	31	5990	2878	5782	4	1984	6	3420	20
AGC-113	33	3985	41	868	42	5512	4235	5865	3	1690	19	3420	21
C117826	3	6348	4	2666	4	6348	3475	5515	5	1887	13	3417	22
NA-W81-162-W	42	5098	28	1346	32	5342	28	4851	24	1365	38	3408	23
RL845472	31	4122	40	2338	7	4568	3766	4607	32	1946	9	3405	24
TX81V6582-2	10	4506	36	1579	23	5222	726	4744	29	1584	27	3365	25
OK84287	6	5858	8	2265	8	5554	3134	4503	36	1085	45	3361	26
TX84V1736	16	5139	27	1700	19	5099	3170	4534	35	1907	11	3355	27
KS82C2338	25	5248	25	1110	38	5197	2183	4585	33	1592	25	3354	28
TX86V1110	19	5442	19	1538	25	5294	4080	4954	19	1325	40	3349	29
NE84557	27	5536	16	1414	30	5488	2921	4575	34	2049	3	3346	30
TX86V1109	18	4585	35	1601	22	4888	3688	4887	22	1592	25	3342	31
WH180001	39	5640	13	1531	26	5789	1219	5210	11	1997	5	3336	32
OK84343	4	5625	14	1629	21	5356	460	4431	39	1341	39	3300	33
OK86197	7	5471	18	1198	34	5015	2851	3782	44	1121	44	3278	34
NA-W84-229	40	5389	22	1113	37	6177	1029	5214	10	2069	2	3268	35
IL83-7439	43	3765	45	871	41	4492	3878	4771	27	1630	24	3210	36
NE82533	26	4756	33	831	43	5237	3528	4739	30	1901	12	3187	37
TXGH10989	9	5762	10	2170	9	5381	448	4831	25	1309	42	3181	38
Bounty-122	38	5419	21	1146	35	5737	1825	4994	16	1547	30	3134	39
XW141	34	4387	39	697	44	5448	2365	4970	18	1298	43	3074	40
C113996	2	4907	31	2567	5	4609	3753	4393	41	1825	15	3044	41
KS84HW196	24	3911	42	1455	29	3825	1401	3323	45	1567	28	2984	42
C0830014	23	5420	20	1945	15	5107	1078	4411	40	1820	16	2973	43
C082009	20	3775	44	1849	16	5054	2136	5135	13	1881	14	2905	44
C11442	1	3833	43	1126	36	4578	2948	3894	43	1437	34	2270	45
MEAN		5244		1675		5513	2812	4893		1655		3371	
LSD(.05)		1202		987		N.S.	1087	1112		304		274	
C.V.		14.0		36.1		15.1	23.7	13.9		11.2		12.8	

* Not included in state or regional averages.

Table 3. Summary of mean yields (kg/ha) and ranks of 45 wheats grown in the 1988 Southern Regional Performance Nursery at 15 locations from the Midwest from which a CV of 14 or less and a significant F test for entries were obtained.

C.I. OR SEL. NO.	ENTRY: NO.	STILLWATER: OKLAHOMA	ALTUS: OKLAHOMA	LAHOMA: OKLAHOMA	GOODWELL: OKLAHOMA	DALLAS: TEXAS	CHILLI- COTHE TEXAS	BUSHLAND (IRR.) TEXAS	BUSHLAND (DRYL.) TEXAS								
TXGH105638	11	3258	29	3137	31	4218	27	4413	9	3630	18	4492	9	5502	4	3039	5
XW161	35	3814	9	4049	2	5482	1	4805	2	3984	6	4723	3	5360	5	1950	38
TXGH13622	13	3540	21	3019	37	3961	35	3684	38	3973	7	4580	5	5102	10	3160	3
TX81V6607-2	15	4089	1	3158	29	5115	4	4176	17	3560	19	4741	1	6226	1	3685	1
TX84V1317	14	4001	3	3488	10	5064	5	4441	8	3474	21	4389	11	5107	9	2977	7
TX84V1336	12	3752	13	3501	7	5217	3	4346	13	3933	8	4311	13	5661	3	3157	4
AGC-112	32	2787	39	3277	21	4324	24	4207	16	3395	27	4060	33	5142	8	3014	6
TX81V6582-2	10	3587	18	3160	28	4760	12	4657	7	3115	38	4311	13	5984	2	3373	2
OK86215	8	3730	15	3100	33	4987	6	4785	3	3907	10	4046	34	4878	14	2672	16
TX87HAI	45	3427	24	3270	22	4177	30	4135	19	3702	17	4557	6	5273	6	2825	12
XH675	36	3691	16	3371	15	4363	23	4292	14	4222	1	4084	29	4922	12	2650	17
RL844677	30	3960	5	3378	14	4763	11	3913	30	3770	14	4730	2	4009	36	2449	21
XH685	37	3744	14	3547	4	4899	8	4092	23	3924	9	4069	31	4649	20	2637	18
OK84286	5	3843	8	3326	17	4743	13	5098	1	3714	16	3974	37	4887	13	2825	12
OK84343	4	4083	2	4086	1	5351	2	4664	6	3409	25	4013	35	4974	11	2260	31
CO830027	21	3571	20	2798	42	4526	19	3790	36	3775	13	4656	4	4779	16	2839	10
TXGH10989	9	3868	6	3266	23	4478	20	4020	25	3471	22	4147	22	4757	17	2861	8
NA-W81-162-W	42	3336	26	3536	5	4729	15	4263	15	3791	12	4542	7	4487	22	2329	27
TX84V1736	16	3780	11	3259	24	4946	7	4403	10	4081	5	4165	20	5183	7	2740	14
OK84287	6	3976	4	3363	16	4704	16	4708	4	3420	24	3797	38	4711	18	2677	15
NA-W83-256	41	3029	37	3296	18	4143	32	4354	12	4094	4	4066	32	4220	29	2369	24
IL80-1251	44	3574	19	3189	27	4374	22	4176	17	3136	37	4270	15	4400	24	2349	26
WH180001	39	3784	10	3564	3	4578	18	4013	26	3113	39	4122	25	4407	23	2031	35
K582C2338	25	3316	27	3106	32	4659	17	4091	24	3298	31	4075	30	4694	19	2361	25
TX86A7041	17	3608	17	3432	12	4813	10	4134	20	4192	2	4152	21	4142	30	2319	30
OK86197	7	3510	22	3143	30	4064	34	4122	21	3905	11	3670	42	4341	27	2460	20
NA-W84-229	40	3208	31	3289	20	4847	9	3922	29	3170	36	4001	36	4781	15	1927	40
TX86V1110	19	3036	36	3508	6	4740	14	3952	28	3303	30	4398	10	4048	33	2326	28
TX86V1109	18	3058	35	3497	9	4388	21	3873	32	3757	15	4131	24	4072	32	2063	33
RL845472	31	2651	41	3235	25	4286	26	4362	11	3297	32	4176	18	4297	28	2570	19
NE83407	28	3497	23	3444	11	4195	28	3953	27	3396	26	4317	12	4014	35	2043	34
NE82656	29	3251	30	3415	13	4318	25	4113	22	3354	28	4176	18	4036	34	1589	43
CO830034	22	3861	7	2820	41	3784	39	3392	44	3326	29	4140	23	3902	37	2857	9
CI17826	3	2937	38	2897	39	3816	38	3436	43	2770	42	3717	41	4097	31	2835	11
NE84557	27	3289	28	3020	36	3927	37	3887	31	3177	34	4235	16	3249	39	2402	23
AGC-113	33	3768	12	3096	34	3474	42	3808	34	3494	20	4096	28	2966	43	2435	22
Bounty-122	38	3423	25	3290	19	4186	29	3864	33	4190	3	4122	25	4642	21	1972	37
KS84HW196	24	3199	32	3081	35	3956	36	3802	35	3171	35	3237	44	4389	25	2321	29
CO830014	23	2475	42	2973	38	4080	33	3553	41	3465	23	4506	8	3210	40	1949	39
XW141	34	1766	45	3501	8	4166	31	4699	5	2699	43	4201	17	4344	26	1875	41
IL83-7439	43	3124	33	3222	26	3617	40	3697	37	3078	40	3757	40	3823	38	1541	44
NE82533	26	2231	43	2554	43	3314	44	3593	39	3294	33	4120	27	3045	42	1841	42
CI13996	2	2692	40	2842	40	3458	43	3575	40	2910	41	3762	39	2870	44	1987	36
CO82009	20	3070	34	2472	44	3560	41	3504	42	2565	44	3654	43	3152	41	2114	32
CI1442	1	1779	44	1680	45	1770	45	2592	45	1343	45	2849	45	1734	45	1017	45
MEAN		3355		3215		4340		4075		3461		4141		4410		2437	
150(-.05)		359		375		364		555		442		532		500		475	

Table 3. Concluded.

C.I. OR SEL. NO.	ENTRY: NO.	LINCOLN NEBRASKA	ALLIANCE NEBRASKA	HAYS KANSAS	MANHATTAN KANSAS	GARDEN CITY KANSAS	BURLINGTON COLORADO	CLOVIS (IRR.) NEW MEXICO	REGIONAL AVERAGE								
TX6H105638	11	4589	5	4735	6	2609	3	4104	17	3167	4	2817	12	7081	2	4053	1
XW161	35	4600	4	4337	22	2419	9	4505	5	2399	37	2647	23	5691	12	4051	2
TX6H13622	13	4721	2	4457	15	2712	1	4675	1	3244	1	2715	17	7176	1	4048	3
TX81V6607-2	15	4178	21	3891	41	2569	4	4123	16	3158	5	2669	21	4870	32	4014	4
TX84V1317	14	4470	8	4500	14	2257	20	4601	4	2874	9	2693	19	5739	11	4005	5
TX84V1336	12	4060	25	3944	39	2349	12	4236	11	2345	42	3122	2	5617	15	3970	6
AGC-112	32	4779	1	4799	2	2284	18	3936	23	3199	3	3175	1	6835	3	3948	7
TX81V6582-2	10	4351	15	4616	10	2641	2	4043	18	2813	15	2784	14	4506	36	3913	8
OK86215	8	4434	9	4376	19	2201	26	4391	6	2684	22	2932	6	5483	17	3907	9
TX87HA1	45	4562	6	4623	9	2383	11	4246	10	3042	6	2851	8	5331	23	3894	10
XH675	36	4154	22	4690	7	2174	29	4202	14	3219	2	2309	39	5940	6	3886	11
RL844677	30	4636	3	4167	31	2421	8	4651	2	2795	17	2748	16	5880	7	3885	12
XH685	37	4329	16	4778	4	2287	17	4637	3	2739	19	2819	11	5042	30	3879	13
OK84286	5	3905	27	4181	30	2215	24	3451	40	2831	12	2764	15	6326	5	3872	14
OK84343	4	3849	29	3862	42	2547	6	3866	28	2385	40	2873	7	5625	14	3856	15
C0830027	21	4109	24	4163	32	2327	15	3526	39	2840	11	2786	13	5841	9	3755	16
TX6H10989	9	3806	33	3893	40	2551	5	3822	32	2982	7	2629	26	5762	10	3754	17
NA-W81-162-W	42	4380	12	4380	18	2118	33	4338	8	2397	38	2363	38	5098	28	3739	18
TX84V1736	16	3174	43	4780	3	2067	37	3990	21	2596	28	1696	45	5139	27	3733	19
OK84287	6	3824	32	3750	43	2132	31	3112	43	2706	21	2841	9	5858	8	3705	20
NA-W83-256	41	3838	30	4443	16	2291	16	4382	7	2802	16	2526	31	5323	24	3678	21
IL80-1251	44	4369	13	4606	11	2233	23	4155	15	2533	31	2698	18	5095	29	3677	22
WH180001	39	3679	36	4764	5	2154	30	4002	19	2280	43	2621	27	5640	13	3650	23
KS82C2338	25	3672	37	4369	21	2186	28	3692	37	2977	8	2964	5	5248	25	3647	24
TX86A7041	17	4228	20	4335	23	1993	43	3991	20	2260	44	2371	37	4407	38	3625	25
OK86197	7	4232	19	4182	29	2009	42	3890	26	2659	24	2619	28	5471	18	3618	26
NA-W84-229	40	3880	28	4327	24	2233	22	3958	22	2368	41	2649	22	5389	22	3597	27
TX86V1110	19	3708	35	4314	25	2076	36	3777	34	2641	25	2635	24	5442	19	3593	28
TX86V1109	18	4389	11	4261	26	2266	19	3807	33	2820	14	2577	29	4585	35	3570	29
RL845472	31	4152	23	4427	17	2215	25	3912	24	2677	23	2968	4	4122	40	3556	30
NE83407	28	4006	26	4555	12	2336	14	3903	25	2556	29	2451	33	4432	37	3540	31
NE82656	29	3835	31	4552	13	2042	39	4223	12	2639	26	2820	10	4722	34	3539	32
C0830034	22	4414	10	4162	33	2517	7	3704	36	2860	10	2001	41	5236	26	3532	33
C117826	3	4295	18	4666	8	2235	21	3762	35	2621	27	2396	35	6348	4	3522	34
NE84557	27	4360	14	4086	37	2038	40	3884	27	2455	35	2550	30	5536	16	3473	35
AGC-113	33	4472	7	4925	1	2083	35	4215	13	2766	18	2488	32	3985	41	3471	36
Bounty-122	38	3212	42	4224	27	2201	26	3006	44	2392	39	1873	43	5419	21	3468	37
KS84HW196	24	3665	38	4145	34	2401	10	3844	30	2529	32	3025	3	3911	42	3378	38
C0830014	23	3549	39	3452	44	2340	13	3852	29	2477	34	2378	36	5420	20	3312	39
XW141	34	3120	44	4216	28	2022	41	4311	9	2498	33	1821	44	4387	39	3308	40
IL83-7439	43	4320	17	4096	35	2107	34	3656	38	2453	36	2427	34	3765	45	3245	41
NE82533	26	3490	40	4374	20	2121	32	3840	31	2733	20	2686	20	4756	33	3199	42
C113996	2	3719	34	4091	36	2047	38	3389	41	2554	30	2630	25	4907	31	3162	43
C082009	20	3217	41	4015	38	1883	44	3144	42	2825	13	2230	40	3775	44	3012	44
C11442	1	2923	45	3041	45	1397	45	2792	45	1924	45	1888	42	3833	43	2171	45
MEAN		4037		4301		2237		3945		2683		2589		5244		3631	
LSD(.05)		614		482		429		566		377		585		1202		289	
C.V.		9.3		6.9		11.7		8.8		8.6		13.8		14.0		9.6	

Table 4. Summary of mean yields (kg/ha) and ranks for 19 wheats grown in the Southern Regional Performance Nursery at 24 sites in 1987 and 1988 with state means and ranks.

VARIETY OR PEDIGREE	: : C.I. OR : SEL. NO.	: : ENTRY: : NO. :	: : DALLAS : TEXAS :	: : CHILLI- : COTHE : TEXAS :	: : BUSHLAND : (IRR.) : TEXAS :	: : BUSHLAND : (DRYL.) : TEXAS :	: : TEXAS : STATE MEAN :
TAM-105*4/Amigo*4//Largo	TXGH105638	11	3742 9	3366 4	4988 4	3384 5	3870 5
TX71A562-6*4/Amigo*4//Largo	TXGH13622	13	3802 7	3412 3	4759 7	3410 4	3846 6
TX71A374-4/TX71A1039-V1	TX84V1317	14	3806 6	3440 2	4934 5	3452 3	3908 4
Sturdy*3/Amigo	TX81V6582-2	10	3744 8	3265 5	5277 2	3554 2	3960 2
TX71A1039-V1*3/Amigo	TX81V6607-2	15	4086 2	3482 1	5502 1	3775 1	4211 1
TAM-105	C117826	3	2981 15	2846 15	4062 13	3110 9	3250 14
KS73146/TX71A1039	TX84V1336	12	3999 3	3183 7	5128 3	3376 6	3922 3
Aurora/2*TAM W-101	OK84343	4	3831 5	3097 8	4806 6	2890 11	3656 8
74cb462/Trapper//Vona	C0830027	21	3590 10	3221 6	4727 8	3342 7	3720 7
C05926//7C/Tobari 63/3/Baca	C0830034	22	3387 11	3050 10	3803 15	3046 10	3321 12
Bounty Hybrid Wheat	Bounty-122	38	4247 1	2992 12	4421 11	2751 14	3603 10
Bulk Selection	KS82C2338	25	3226 13	3081 9	4482 10	2884 12	3418 11
Bezostaya/TAM W-101//W558	XW141	34	2307 18	2980 13	3966 14	2564 16	2954 16
KS73167/Agate//Sage sib	NE82533	26	3219 14	2892 14	3517 16	2444 17	3018 15
TAM W-101*4/Amigo*4//Largo	TXGH10989	9	3852 4	3005 11	4483 9	3154 8	3624 9
Bsn/StrIng//3*Sut/3/Eag/4/Pinnacle/2*Eag	KS84HW196	24	3263 12	2771 16	4217 12	2836 13	3272 13
Scout 66	C113996	2	2766 16	2647 18	2990 18	2655 15	2765 17
74F878/Wings//Vona	C082009	20	2752 17	2651 17	3212 17	2396 18	2753 18
Kharkof	C11442	1	1550 19	1923 19	1736 19	1888 19	1774 19
MEAN			3376	3016	4264	2995	3413
LSD(.05)			781	593	864	670	480
C.V.			7.1	7.7	8.4	10.0	8.5

Table 4. Continued.

C.I. OR SEL. NO.	ENTRY: : NO.	LINCOLN : NEBRASKA	CLAY : CENTER : NEBRASKA	ALLIANCE : NEBRASKA	NEBRASKA : STATE MEAN	CLOVIS : (IRR.) : NEW MEXICO	CLOVIS : (DRYL.)* : NEW MEXICO	FARMINGTON : NEW MEXICO	NEW MEXICO : STATE MEAN
TXGH105638	11	3608 4	3252 3	4933 1	3931 2	6261 2	4224 1	6276 10	6268 4
TXGH13622	13	3647 2	3149 4	4568 5	3788 4	6540 1	3915 2	6130 11	6335 3
TX84V1317	14	3842 1	3518 1	4749 4	4036 1	5827 6	2783 8	6482 7	6154 5
TX81V6582-2	10	3367 8	2835 10	4815 3	3672 6	4673 17	2327 17	6626 5	5649 11
TX81V6607-2	15	3144 13	2939 8	4417 9	3500 8	5177 12	2579 14	6095 12	5636 12
CI17826	3	3517 6	3090 5	4831 2	3813 3	6101 4	3881 3	6088 13	6095 7
TX84V1336	12	3308 10	2636 13	4289 13	3411 11	5211 11	2754 10	7029 1	6120 6
OK84343	4	3569 5	2094 18	4259 14	3307 14	5405 8	2680 13	5282 17	5344 17
C0830027	21	3248 11	2742 12	4431 8	3474 9	6182 3	2773 9	6983 2	6583 1
C0830034	22	3647 2	2964 7	4513 6	3708 5	6079 5	3403 5	6980 3	6530 2
Bounty-122	38	2785 16	2548 15	4399 10	3244 15	5643 7	3160 6	6509 6	6076 8
KS82C2338	25	2921 14	2867 9	4453 7	3413 10	4980 14	2307 18	5712 14	5346 16
XW141	34	2681 17	2976 6	4315 12	3324 13	5150 13	2570 15	6726 4	5938 9
NE82533	26	2900 15	3312 2	4351 11	3521 7	4774 16	2271 19	6360 9	5567 13
TXGH10989	9	3169 12	1857 19	4119 15	3048 17	5323 10	2736 12	5551 15	5437 14
KS84HW196	24	3368 7	2377 17	3852 18	3199 16	4328 19	2748 11	4744 19	4536 19
CI13996	2	3339 9	2816 11	3878 17	3344 12	5331 9	3699 4	5480 16	5405 15
C082009	20	2569 18	2552 14	3968 16	3030 18	4979 15	3127 7	6374 8	5677 10
CI1442	1	2468 19	2466 16	3178 19	2704 19	4425 18	2448 16	5096 18	4760 18

MEAN	3216	2790	4332	3446	5389	2968	6133	5761
LSD(.05)	736	N.S.	595	508	N.S.	N.S.	1171	N.S.
C.V.	12.2	14.6	8.0	11.1	11.2	18.3	13.1	12.6

* Not included in state or regional averages.

Table 4. Continued.

C.I. OR SEL. NO.	ENTRY: NO.	HUTCHINSON* KANSAS	HAYS KANSAS	MANHATTAN KANSAS	GARDEN CITY KANSAS	KANSAS STATE MEAN	S. DAKOTA	AMES IOWA	URBANA ILLINOIS
TXGH10563B	11	2382 6	3640 2	4292 4	2590 2	3507 3	2889 2	3303 9	5495 1
TXGH13622	13	2423 5	3762 1	4642 2	2727 1	3711 1	3136 1	4027 4	5318 2
TX84V1317	14	2148 8	3405 7	5050 1	2395 4	3617 2	2168 12	3170 11	4609 8
TX81V6582-2	10	2746 1	3578 3	3757 11	2380 5	3238 6	2511 5	2148 18	4366 11
TX81V6607-2	15	2712 2	3452 6	4040 8	2457 3	3316 5	2106 14	2248 17	3357 18
CI17826	3	1696 16	3498 5	3409 14	2262 6	3056 9	2348 9	4187 2	5174 3
TX84V1336	12	1656 17	3231 11	3959 9	2151 7	3114 8	2004 17	3172 10	3884 15
OK84343	4	2549 3	3561 4	4342 3	2096 12	3333 4	1994 18	2738 16	4883 4
C0830027	21	2187 7	3158 13	3802 10	2118 10	3026 10	2547 4	3515 5	4560 9
C0830034	22	1967 12	3296 9	3660 12	2011 13	2989 11	2379 8	3475 6	4168 13
Bounty-122	38	1866 14	3231 11	3320 16	1779 17	2777 16	1885 19	3151 12	4511 10
KS82C2338	25	2494 4	3123 14	4137 6	2144 8	3135 7	2058 16	2904 13	4773 5
XW141	34	1908 13	2759 17	4169 5	1758 18	2895 15	2271 10	3423 7	4755 6
NE82533	26	1574 18	2905 16	4050 7	1799 16	2918 14	2492 6	4156 3	4749 7
TXGH10989	9	2120 9	3376 8	3323 15	2131 9	2944 12	2258 11	2037 19	4093 14
KS84HW196	24	2009 11	3296 9	3507 13	1964 15	2922 13	2165 13	2823 14	4337 12
CI13996	2	1729 15	3032 15	2965 17	1964 14	2654 17	2757 3	4220 1	3501 17
C082009	20	2011 10	2648 18	2930 18	2112 11	2563 18	2396 7	2745 15	3641 16
CI1442	1	1369 19	2039 19	2151 19	1556 19	1915 19	2059 15	3380 8	3169 19
MEAN		2081	3210	3763	2126	3033	2332	3201	4386
LSD(.05)		N.S.	452	1025	N.S.	589	608	N.S.	N.S.
C.V.		13.8	8.9	12.0	11.6	11.2	20.4	15.5	10.2

* Not included in state or regional averages.

Table 4. Concluded.

C. I. OR SEL. NO.	ENTRY: NO.	STILLWATER: OKLAHOMA	ALTUS: OKLAHOMA	LAHOMA: OKLAHOMA	GOODWELL: OKLAHOMA	OKLAHOMA: STATE MEAN	JULESBURG: COLORADO	ABERDEEN: IDAHO	LIND*: WASHINGTON	REGIONAL: AVERAGE
TXGH105638	11	2610	2562	3319	4776	3317	2218	7148	1488	4031
TXGH13622	13	2940	2313	3080	4296	3157	2119	6208	1441	3999
TX84V1317	14	3602	2719	3937	4710	3742	1460	6340	1122	3982
TX81V6582-2	10	2631	2406	3584	4793	3354	1773	6674	1182	3750
TX81V6607-2	15	2897	2266	3812	4820	3449	1717	6801	1184	3743
CI17826	3	2242	2242	2976	4370	2958	2138	6827	1430	3729
TX84V1336	12	2646	2647	3805	4765	3466	1132	6620	1444	3723
OK84343	4	3120	3185	4202	4792	3825	1873	5748	1142	3703
C0830027	21	2479	2214	3578	4426	3174	1539	5173	1283	3694
C0830034	22	2679	2257	3081	3715	2933	1625	6080	1729	3614
Bounty-122	38	2382	2429	3303	4672	3197	2002	6933	1407	3614
KS82C2338	25	2970	2509	3543	4345	3342	2308	5627	1218	3574
XW141	34	1970	2425	3096	4858	3087	1609	5726	961	3452
NE82533	26	2263	1974	2771	3953	2740	1777	5490	1280	3436
TXGH10989	9	2788	2393	3342	4390	3228	1823	5580	1126	3431
KS84HW196	24	2383	2286	3177	4028	2968	1686	4680	1015	3242
CI13996	2	1991	2183	2752	4023	2737	1925	4767	1726	3237
C082009	20	2006	1930	2712	3935	2646	1702	5790	1801	3143
CI1442	1	1349	1137	1726	2972	1796	821	3191	1586	2394
MEAN	2524	2320	3252	4350	3111	1750	5863	1346	3552	
LSD(.05)	N.S.	459	911	661	472	N.S.	N.S.	N.S.	316	
C.V.	11.3	9.3	5.4	9.4	9.2	14.9	14.3	16.2	12.3	

* Not included in regional averages.

Table 5. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 45 entries in the 1988 Southern Regional Performance Nursery grown at 26 locations.

C.I. OR SEL. NO.	ENTRY: NO.	MEAN YIELD OVER 26 LOCATIONS KG/HA	REGRESSION COEFFICIENT (b)	CORRELATION COEFFICIENT (r)	COEFFICIENT OF DETERMINATION (r ²)
TXGH13622	13	3798	1.07	0.94	0.89
TXGH10563B	11	3757	1.14	0.96	0.92
AGC-112	32	3730	1.02	0.95	0.90
XH675	36	3667	1.12	0.98	0.96
TX84V1336	12	3662	1.16	0.96	0.93
XW161	35	3657	1.14	0.97	0.94
TX87HA1	45	3649	1.01	0.95	0.91
RL844677	30	3639	1.06	0.97	0.94
XH685	37	3598	1.11	0.98	0.95
OK86215	8	3590	1.04	0.97	0.94
TX84V1317	14	3587	1.19	0.98	0.96
IL80-1251	44	3507	1.02	0.97	0.94
OK84286	5	3505	1.05	0.95	0.91
NA-W83-256	41	3494	0.98	0.98	0.95
NE82656	29	3449	0.84	0.92	0.85
TX86A7041	17	3443	1.12	0.94	0.88
TX81V6607-2	15	3434	1.05	0.82	0.67
NE83407	28	3425	0.87	0.94	0.88
C0830027	21	3424	1.13	0.97	0.95
C0830034	22	3420	1.01	0.95	0.90
AGC-113	33	3420	1.00	0.90	0.80
CI17826	3	3417	1.00	0.94	0.89
NA-W81-162-W	42	3408	1.07	0.98	0.97
RL845472	31	3405	0.82	0.94	0.89
TX81V6582-2	10	3365	1.06	0.88	0.77
OK84287	6	3361	1.04	0.95	0.91
TX84V1736	16	3355	1.03	0.95	0.89
KS82C2338	25	3354	0.94	0.98	0.95
TX86V1110	19	3349	0.99	0.96	0.91
---	27	3346	0.86	0.96	0.93
	18	3342	0.97	0.97	0.93
	39	3336	1.10	0.95	0.91
	4	3300	1.06	0.90	0.80
	7	3278	0.91	0.96	0.91
	40	3268	1.09	0.94	0.87
	43	3210	0.88	0.93	0.86
	26	3187	0.83	0.92	0.85
	~	3181	1.07	0.90	0.81
		3134	1.07	0.96	0.92
		3074	1.10	0.95	0.90
		3044	0.69	0.92	0.84
		2984	0.78	0.89	0.78
		2973	0.92	0.93	0.87
		905	0.86	0.93	0.86
		270	0.73	0.84	0.71

Table 6. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 19 entries in the 1987 and 1988 Southern Regional Performance Nurseries grown at 21 locations.

C.I. OR SEL. NO.	: ENTRY: NO.	: MEAN YIELD : OVER 21 : LOCATIONS : KG/HA :	: REGRESSION : COEFFICIENT : (b) :	: CORRELATION : COEFFICIENT : (r) :	: COEFFICIENT : OF : DETERMINATION : (r ²) :
TXGH10563B	11	4031	1.08	0.96	0.92
TXGH13622	13	3999	0.98	0.95	0.90
TX84V1317	14	3982	1.04	0.96	0.92
TX81V6582-2	10	3750	1.15	0.92	0.85
TX81V6607-2	15	3743	1.13	0.90	0.81
CI17826	3	3729	1.08	0.95	0.90
TX84V1336	12	3723	1.09	0.93	0.87
OK84343	4	3703	0.98	0.91	0.82
C0830027	21	3694	1.08	0.96	0.92
C0830034	22	3614	1.04	0.95	0.90
Bounty-122	38	3614	1.21	0.96	0.93
KS82C2338	25	3574	0.90	0.96	0.93
XW141	34	3452	1.09	0.95	0.89
NE82533	26	3436	0.93	0.93	0.86
TXGH10989	9	3431	1.00	0.94	0.88
KS84HW196	24	3242	0.79	0.92	0.85
CI13996	2	3237	0.78	0.88	0.78
C082009	20	3143	0.98	0.95	0.90
CI1442	1	2394	0.69	0.75	

Table 7. Summary of agronomic and yield data for 45 wheats in the 1988 Southern Regional Performance Nursery.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY NO.	PLANT HEIGHT CM	DAYS TO HEADING FROM 1/1	DAYS TO RIPENING FROM 1/1	LODGING %
Number of Trials						
TX71A562-6*4/Amigo*4//Largo	TXGH13622	13	26	21	2	3
TAM-105*4/Amigo*4//Largo	TXGH105638	11	77	134	182	21
HRW Selection	AGC-112	32	77	132	181	12
Winter Wheat Hybrid	XH675	36	76	133	179	13
KS73146/TX71A1039	TX84V1336	12	82	134	181	4
TAM W-101/W603//W558	XW161	35	72	132	181	10
MUST/3/T-105*4/AMI*4//LARGO, TXGH10289	TX87HA1	45	68	131	178	0
Winter Wheat Line	RL844677	30	80	133	182	3
Winter Wheat Hybrid	XH685	37	83	136	183	5
OK79257/Century Sib/2/Chisholm	OK86215	8	82	134	181	5
TX71A374-4/TX71A1039-V1	TX84V1317	14	75	132	180	8
TX69A330/IL76-3820	IL80-1251	44	71	133	180	13
Payne*2/C0725052	OK84286	5	78	136	179	3
Payne/W78-069	NA-W83-256	41	74	134	180	6
Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	29	77	135	182	12
TAM-108/Arkan	TX86A7041	17	79	137	181	5
TX71A1039-V1*3/Amigo	TX81V6607-2	15	71	136	179	7
Complex Pedigree	NE83407	28	69	134	181	11
74cb462/Trapper//Vona	C0830027	21	74	137	181	4
C05926//7C/Tobari 63/3/Baca	C0830034	22	81	134	182	22
HRW Selection	AGC-113	33	83	137	182	9
TAM-105	C117826	3	79	137	182	18
OK11252A/W79-1226	NA-W81-162-W	42	75	134	180	7
Winter Wheat Line	RL845472	31	70	134	188	3
Sturdy*3/Amigo	TX81V6582-2	10	80	136	180	8
Payne*2/C0725052	OK84287	6	69	132	180	11
TAM-106 resel./TX69D4819	TX84V1736	16	74	134	182	5
Bulk Selection	KS82C2338	25	68	132	185	21
Rannaya/NE701136//C113449/Ctk	TX86V1110	19	76	133	179	4
Wrr/Sut//Mow6811/3/Aga S/4/NE68457/Ctk78	NE84557	27	82	133	178	23
Rannaya/NE701136//C113449/Ctk	TX86V1109	18	83	137	180	14
Bounty Hybrid Wheat	WH180001	39	82	133	177	26
Aurora/2*TAM W-101	OK84343	4	81	136	181	5
Hawk/DK80099	OK86197	7	73	135	180	1
W79-227/Payne	NA-W84-229	40	76	133	179	26
IL77-4259/IL76-3845	IL83-7439	43	71	135	182	0
KS73167/Agate//Sage sib	NE82533	26	80	136	180	16
TAM W-101*4/Amigo*4//Largo	TXGH10989	9	79	137	181	2
Bounty Hybrid Wheat	Bounty-122	38	73	134	182	29
Bezostaya/TAM W-101//W558	XW141	34	76	134	183	3
Scout 66	C113996	2	69	136	182	2
Bsn/Strling//3*Sut/3/Eag/4/Pinnacle/2*Eag	KS84HW196	24	90	136	180	30
74cb452/Vona//Baca	C0830014	23	74	133	186	21
74f878/Wings//Vona	C082009	20	85	134	181	6
Kharkof	C11442	1	82	138	184	17
			92	142	185	35

Table 1. Continued.

C.I. OR SEL. NO.	Number of Trials	WINTER : ENTRY: SURVIVAL : NO. : %	STRAW : STRENGTH : 1-5	LEAF RUST : SEVERITY : %	SEPTORIA : 0-9	BYD : VIRUS : 0-9	MILDEW : % :	VOLUME : WEIGHT : KG/HL	YIELD : KG/HA
TXGH13622	13	60	3	31	7	6	0	75.6	3798
TXGH10563B	11	66	3	30	6	7	0	74.2	3757
AGC-112	32	81	2	35	7	7	0	74.1	3730
XH675	36	58	3	15	6	5	0	74.3	3667
TX84V1336	12	53	3	11	7	7	5	75.3	3662
XW161	35	66	1	3	6	5	20	74.6	3657
TX87HA1	45	73	3	22	6	7	0	75.4	3649
RL844677	30	62	3	5	6	6	0	75.6	3639
XH685	37	67	3	13	7	5	50	73.7	3598
OK86215	8	55	2	15	7	6	0	75.2	3590
TX84V1317	14	42	3	7	7	7	5	76.3	3587
IL80-1251	44	72	3	8	6	6	0	74.4	3507
OK84286	5	64	3	14	6	5	60	75.6	3505
NA-W83-256	41	63	2	19	6	5	60	73.8	3494
NE82656	29	77	3	4	6	5	0	72.6	3449
TX86A7041	17	64	3	4	6	6	0	71.3	3443
TX81V6607-2	15	4	3	6	6	5	0	78.1	3434
NE83407	28	69	3	19	6	5	0	72	3425
C0830027	21	47	4	15	7	6	0	76.9	3424
C0830034	22	54	3	28	7	6	0	74.7	3420
AGC-113	76	76	4	22	7	6	0	71.8	3420
C117826	3	69	2	35	7	7	25	73.4	3417
NA-W81-162-W	42	50	2	9	6	6	60	75.5	3408
RL845472	31	71	4	6	6	6	0	76.1	3405
TX81V6582-2	10	17	2	17	5	7	0	76.9	3365
OK84287	62	62	2	15	6	4	0	75.8	3361
TX84V1736	16	61	2	14	6	7	0	75.6	3355
KS82C2338	51	51	3	27	6	7	0	76.4	3354
TX86V1110	71	71	3	5	7	6	5	73.3	3349
NE84557	52	52	2	9	7	6	0	76.4	3346
TX86V1109	69	69	3	4	6	6	10	74.6	3342
WH180001	41	41	3	12	5	5	0	73.9	3336
OK84343	36	36	2	7	6	5	0	74.5	3300
OK86197	47	47	3	19	6	6	40	75.1	3278
NA-W84-229	18	18	1	9	6	7	50	74.8	3268
IL83-7439	-	-	1	5	6	6	0	74.9	3210
NE82533	-	-	3	20	6	6	0	75	3187
TXGH10989	-	-	3	20	5	4	0	73.6	3181
Bounty-122	-	-	2	24	7	7	50	71.8	3134
XW141	-	-	2	7	6	7	0	71.2	3074
C113996	-	-	5	27	6	7	5	75.8	3044
KS84HW196	-	-	2	22	8	7	0	76.3	2984
C0830014	-	-	2	26	6	7	0	75.3	2973
C082009	-	-	2	16	7	6	0	75.7	2905
C11442	-	-	5	28	6	6	10	73.2	2270

No.	Name or sel. no.	Reaction produced by isolates							Spec. sr gene
		151							
		69- 21- 399	71- 21- 584B	72- 25- 639C	72- 00- 53A	72- 01- 4A	74- 21- 1409A	15B-2	
	QFBS	QSHS	RHRS	RKQS	RTQQ	TNMH	TNMK		

Table 8. Continued.

No.	Name or sel. no.	Reaction produced by isolates										Spec. sr gene
		72- 00- 1370C QFBS	69- 21- 399 QSHS	71- 21- 584B RHRS	72- 25- 639C RKQS	72- 00- 53A RTQQ	72- 01- 4A TNMH	74- 21- 1409A TNMK	15B-2	11-32-113	151	
26	NE82533	2=	2=	2-	2=	;	;	2-	2-	;	17,24	
27	NE84557	;	2=	2=	2=	;	;	;	;	;	6,17,24	
28	NE83407	;	2-	2=	2	;	;	;	;	;	6,17,24	
29	NE82656	;	2=cn	2=cn	2	;	;	;	;	;	6,17,24	
30	RL844677	23	s	s	s	;	;	23	23	;	17	
31	RL845472	2	2	2	2	;	;	2	2	;	17,+	
32	AGC-112	2=	2	2	2=	2=	2=	2=	2=	2=	+	
33	AGC-113	;	2-	2	23	;	;	;	;	;	6,17,+	
34	XW-141	2	2	2	2	23	23	23	23	23	none	
35	XW-161	2=	2-	2-	2-	;	;	s	s	s	17,Tmp	
36	XH-675	2=	2-	2-	2-	2-	2	2	2	2	24 or 31	
			s	x	2	2	x,s	s	s	s	none	
		2-	2-	2=	2-	2=	1	;	;	;	6,+	
		2-cn	2-cn	2-cn	23	xcn	1n	;	;	;	6+	
		2	2	x	;	2=	32	23	23	23	+	
		2	2	2-	2-	2-	;	;	;	;	6,17	
		2-	2-	1	2=	2-	32	23	23	23	+	
		2-	2-	2=	2=	;	;	2=	2=	2=	17	
		s	s	s	s	s	s	s	s	s	none	
		23	23	x,s	23	2-	1-	;	;	;	6,Amigo	

Table 9. Adult plant field reaction of entries of the 1988 Southern Regional Performance Nursery to Puccinia graminis f.sp. tritici (by D. V. McVey, U.S.D.A., A.R.S., Cereal Rust Laboratory, U. of MN, St. Paul, MN).

No.	Name or sel. no.	Stem rust 6/22
1	Kharkof	TS
2	Scout 66	TS
3	TAM-105	10S
4	OK84343	0
5	OK84286	TR
6	OK84287	TR
7	OK86197	TR
8	OK86215	TR
9	TXGH10989	TR
10	TX81V6582-2	TR
11	TXGH105638	TR
12	TX84V1336	TR
13	TXGH13622	TR
14	TX84V1317	30S
15	TX81V6607-2	TR
16	TX84V1736	10S
17	TX86A7041	TR
18	TX86V1109	5MS-S
19	TX86V1110	5MS-S
20	C082009	TR
21	C0830027	TR
22	C0830034	TS
23	C0830014	TS
24	KS84HW196	TR
25	KS82C2338	TR
26	NE82533	TR
27	NE84557	TR
28	NE83407	TR
29	NE82656	0
	RL844677	TMR
	RL845472	TMR
	AGC-112	TR
	AGC-113	TS
	XW-141	TS
	XW-161	10S
	XH-675	10S
	XH-685	20S
	Bounty 122	5MS-S
	WH180001	20S
	NA-W84-229	0
	NA-W83-256	0
	NA-W81-162W	0
	IL83-7439	TR
	IL80-1251	10S
	TX87HAI	TR

Table 10. Hessian fly reaction, Great Plains biotype,
1988 Southern Regional Performance Nursery.
(Data provided by J. H. Hatchett, USDA-ARS,
Manhattan, KS.)

ENTRY NO.	C.I. OR SEL. NO.	REACTION TYPE	NO. OF PLANTS	
			R	S
1	CI1442	S		
2	CI13996	S		
3	CI17826	S		
4	OK84343	S		
5	OK84286	H	9	14
6	OK84287	H	7	13
7	OK86197	H	6	11
8	OK86215	S		
9	TXGH10989	S		
10	TX81V6582-2	S		
11	TXGH105638	S		
12	TX84V1336	S		
13	TXGH13622	S		
14	TX84V1317	S		
15	TX81V6607-2	S		
16	TX84V1736	S		
17	TX86A7041	S		
18	TX86V1109	S		
19	TX86V1110	S		
20	C082009	H	8	16
21	C0830027	S		
22	C0830034	S		
23	C0830014	S		
24	KS84HW196	S		
25	KS82C2338	S		
26	NE82533	H	5	16
27	NE84557	H	8	13
28	NE83407	H	5	17
29	NE82656	R		
30	RL844677	H	7	20
31	RL845472	H	19	3
32	AGC-112	S		
33	AGC-113	S		
34	XW141	S		
35	XW161	H	17	7
36	XH675	S		
37	XH685	S		
38	Bounty-122	S		
39	WH180001	S		
40	NA-W84-229	H	5	21
41	NA-W83-256	S		
42	NA-W81-162-W	S		
43	IL83-7439	S		
44	IL80-1251	H	10	13
45	TX87HA1	S		

Table 11. Virus reactions of entries in the 1988 Southern Regional Performance Nursery. (Data provided by A. D. Hewings and F. L. Kolb, Urbana, Illinois.)

ENTRY NO.	C.I. OR SEL. NO.	BARLEY YELLOW	SOILBORNE	
		DWARF 0-9	MOSAIC 0-9	
		Rep 1	Rep 2	
1	CI1442	4	8	7
2	CI13996	6	8	7
3	CI17826	4	7	8
4	OK84343	3	7	6
5	OK84286	4	8	6
6	OK84287	4	8	7
7	OK86197	5	4	3
8	OK86215	7	8	8
9	TXGH10989	6	8	7
10	TX81V6582-2	4	8	7
11	TXGH105638	6	8	7
12	TX84V1336	5	7	6
13	TXGH13622	4	6	5
14	TX84V1317	5	6	5
15	TX81V6607-2	4	8	8
16	TX84V1736	8	8	7
17	TX86A7041	5	6	7
18	TX86V1109	6	7	7
19	TX86V1110	5	8	7
20	C082009	5	8	8
21	C0830027	6	9	8
22	C0830034	6	8	6
23	C0830014	7	8	8
24	KS84HW196	7	7	8
25	KS82C2338	7	5	4
26	NE82533	6	4	3
27	NE84557	6	5	5
28	NE83407	4	6	7
29	NE82656	5	7	6
30	RL844677	6	2	4
31	RL845472	7	8	7
32	AGC-112	6	8	7
33	AGC-113	6	2	4
34	XW141	7	3	6
35	XW161	4	2	5
36	XH675	7	6	6
37	XH685	4	6	6
38	Bounty-122	4	8	8
39	WH180001	6	6	6
40	NA-W84-229	6	5	5
41	NA-W83-256	6	4	4
42	NA-W81-162-W	7	3	3
43	IL83-7439	6	3	3
44	IL80-1251	6	7	7
45	TX87HA1	6	5	5

Table 12. Aluminum tolerance of lines tested in the 1988 SRPN based on hematoxylin staining of seedling roots. (Data provided by B.F. Carver, Stillwater, OK)

Entry No.	Selection No.	Stain Intensity ^a			Rating ^b
		Al Concentration (mM)	0.18	0.36	0.72
1	Kharkof	C	C	C	VS
2	Scout 66	C	C	C	VS
3	TAM 105	C	C	C	VS
4	OK84343	P	P	C	I
5	OK84286	P	C	C	MS
6	OK84287	P	C	C	MS
7	OK86197	P	C	C	MS
8	OK86215	P	P	C	I
9	TXGH10989	P	P	C	I
10	TX81V6582-2	P	C	C	MS
11	TXGH10563B	C	C	C	VS
12	TX84V1336	N	P	P	T
13	TXGH13622	P/C/N	C/P	C	VS-I*
14	TX84V1317	N	P	P	T
15	TX81V6607-2	N	P	P	T
16	TX84V1736	P/C/N	P/C	P/C	VS-T*
17	TX86A7041	C	C	C	VS
18	TX86V1109	P	P	P	T
19	TX86V1110	N	P	P	T
20	C082009	P	C/P	C	MS-I*
21	C0830027	P	C	C	MS
22	C0830034	P	C/P	C	MS-I*
23	C0830014	P	C	C	MS
24	KS84HW196	C/P	C/P	C	VS-I*
25	KS82C2338	P/C	C/P	C	VS-I*
26	NE82533	C	C	C	VS
27	NE84557	C/P	C	C	VS-MS*
28	NE83407	C	C	C	VS
29	NE82656	P	C	C	MS
30	RL844677	P	P/C	C	MS-I*
31	RL845472	C	C	C	VS
32	AGC-112	C	C	C	VS
33	AGC-113	P	C/P	C	MS-I*
34	XW141	N	N	P	T
35	XW161	N	N	P	T
36	XH675	P	C	C	MS
37	XH685	P	C	C	MS
38	Bounty-122	N	N	P	T
39	WH180001	N	P	P	T
40	NA-W84-229	P	P	P	T
41	NA-W83-256	N/P	P/C	P/C	MS-T*
42	NA-W81-162-W	P	P	C	I
43	IL83-7439	N/P	P	C/P	I-T*
44	IL80-1251	N	P	P	T
45	TX87HA1	P	P	P	T

^aC, P, and N = complete, partial, and no staining of root tips, respectively.

^bVS = very susceptible, MS = moderately susceptible, I = intermediate and T = tolerant (≤ 0.72 mM Al); * = heterogeneous response; predominant stain intensity listed first for each Al concentration.

1988
Northern Regional Performance Nursery

<u>Entry No.</u>	<u>Variety or Pedigree</u>	<u>Se1. No.</u>	<u>Source</u>
1**	Kharkof	CI1442	Check
2**	Roughrider	CI17439	"
3**	Colt	PI476975	"
4	CI15322//Agate/4*Scout 66/3/Ctk 78/4/SD74221	SD82144	So. Dakota
5	CI15322//3*(Agent/4*Scout66)	SD76463-16	"
6	SD74221*2/Lathrop	SD82114	"
7	SD76109/Rose	SD78207-4	"
8	SD76669*2/KS71591	SD791231	"
9	Rrr//Yogo/Trapper	ND8212	No. Dakota
10	Rrr/3/Froid//Winoka/WW8	ND8215	"
11	Rrr*2/1809	ND8286	"
12	Ctk/3/Froid*2//ND363/ND269	ND8407	"
13*	Rrr/FO.1527	ND8460	"
14	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	Nebraska
15	HiPlains/Wings/3/Pkr*4/Agent//Belot.198/Lcr	NE82438	"
16*	(FTN/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-Cns-TT1 (CTMH)/ Sando60/5/Vona/6/Wrr*5/Agent//Kavkaz	NE83432	"
17*	Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	"
18	OK11252A/W76-1226 (Abilene)	NA-81-362-5	NAPB
19*	Winter Wheat Hybrid	XH947	HybriTech
20*	" "	XNH1354	"
21	Kharkov 22 MC/Bezostaya 1	WT176	Lethbridge
22	Norstar/Rrr	WT177	"
23	"	WT179	"
24	Turkey/Burt//Bezostaya 1	ID0180	"
25*	Hgl/ID5006/4/II-60-156/CI14107//It/3/ 2Cnn/PI178383	ID0301	Idaho
26	Lancota/Froid//NE69559/Wnk	MT8039	Montana

* New Entry in 1988

** New Seed Provided

TEST SITE INFORMATION - NRPN

Clovis, NM -- See information for SRPN.

Nebraska stations -- See information for SRPN.

Brookings, SD -- See information for SRPN.

Presho, SD -- See information for SRPN.

Highmore, SD -- Seeded on 9/9/87 into fallowed land with good moisture. A mild winter allowed for 100% survival. April, May, June, and July were extremely hot and dry. Leaf rust was present at 10 to 20% severity on susceptible cultivars. WSMV was present and notes were taken on general plant appearance. Harvested on 7/11/88.

Casselton, ND -- The nursery was planted on 9/9/87. Some winterkill was recorded due to cold temperatures and uneven snow cover. Dry conditions were experienced from planting through harvest with less than 40% of normal precipitation received from April through July.

Carrington, ND -- The nursery was planted on 9/4/87 into standing small grain stubble. Along with some winterkill, there was severe drought during the growing season. The average yield at this location was 6 bu/a.

Williston, ND -- All varieties had 100% fall stand establishment and no winterkill. There were no disease, weed, or insect problems. The drought severely affected yields. There were 21 days in June with maximum daily temperatures 90 degrees or above. Two inches of the total June rainfall of 3.02 inches was received on June 30 and did very little to enhance grain production. June was the only month in which rains of greater than 0.33 inches occurred.

Rosemount, MN -- Planted on 9/9/87 and harvested 7/8/88. Plots were variable due to severe drought and heat and a spotty fall infection of BYDV. There was no winterkill. Heat pushed grain fill very fast and little moisture was available in June (0.22 inches). Temperatures were near or over record highs on many days with relatively low humidity. No other diseases were noted.

Waseca, MN -- Planted on 9/8/87 and harvested 7/6/88. There was less BYDV infection than at Rosemount and it was scattered and not severe. More precipitation was received but temperatures were just as severe when compared to Rosemount.

Sheridan, WY -- The nursery was seeded into a tilled seed bed and no fertilizer was applied. The soft ground resulted in sliding of the wheel driving the seed distributor. An inadequate stand resulted in three plots. Below normal precipitation dramatically affected yields. No insect or disease problems were noted.

Archer, WY -- The nursery was planted into a no-till chemical fallow area with a no-till plot drill. Fertilizer at 40-20-0 lbs/a rate was deep band applied at planting time. Very little moisture was received throughout the fall which affected emergence and stand establishment. The moisture received throughout the spring and summer was above average and timely. Temperatures were above normal beginning in early June and remained high until harvest. There was no insect or disease damage to the nursery. The Russian wheat aphid, which caused extensive damage the previous year, was not a problem.

Moccasin, MT -- All entries survived the winter with excellent stands. Cool moist conditions during April and the first two weeks of May produced succulent growth. Drought stress from May 15 through June 15 with high temperatures and strong south winds significantly reduced yields. Powdery mildew was the only disease or insect problem observed this year. Russian wheat aphids and green bugs arrived too late to affect small grain yields.

Sidney, MT -- Diseases and insects were not a problem. There was good soil moisture to a depth of 18 inches at planting time, resulting in good emergence and stand establishment. Winter survival was excellent. Persistent hot, dry, and windy conditions throughout the spring and summer growing periods reduced tillering, plant height, and yields drastically. Protein levels of harvested grain were very high due to the drought. Maturity was 2-3 weeks ahead of normal. A total of 6.18 inches of precipitation was received during the growing season compared to the long term average of 13.53 inches.

Bozeman, MT -- No information.

Idaho stations -- See information for SRPN.

Lind, WA -- See information for SRPN.

Table 13. Yield and agronomic data for entries in the 1988
Northern Regional Performance Nursery.

CLOVIS (IRR.)

NEW MEXICO

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD : KG/HA	: VOLUME : WEIGHT : KG/HL	: PLANT : HEIGHT : CM	: DAYS TO : HEADING : FROM 1/1	: LEAF RUST: : SEV.:RESP: : % : 0-9:
MT8039	26	4643	65.3	90	134	30
XNH1354	20	4641	67.5	81	139	27
XH947	19	4528	65.6	80	137	9
SD82114	6	4510	67.9	92	137	10
PI476975	3	4439	67.3	72	137	27
NE83432	16	4125	68.1	77	139	11
NA-81-362-5	18	4114	69.2	74	137	9
NE82656	14	3990	66.5	78	137	7
ID0301	25	3927	64.6	89	144	20
NE82438	15	3784	66.5	79	139	13
SD82144	4	3761	64.5	86	138	15
SD76463-16	5	3480	67.9	94	140	8
ND8286	11	3447	67.9	91	141	15
NE84581	17	3393	68.2	80	142	1
ND8215	10	3363	71.4	98	143	5
ND8407	12	3207	66.9	96	139	5
ND8212	9	3127	69	93	144	27
CI17439	2	2800	68.8	91	144	17
SD791231	8	2685	69.9	87	139	4
ID0180	24	2653	64.5	88	145	14
SD78207-4	7	2488	68.5	94	144	4
WT176	21	2449	68.7	98	144	8
WT179	23	2386	67	97	145	10
CI1442	1	2317	69.7	102	144	10
WT177	22	2110	69.8	98	144	12
ND8460	13	1845	69.1	97	144	2
MEAN		3393				
LSD(.05)		930				
C.V.		16.7				

CLOVIS (DRYL.)

NEW MEXICO

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1 :	: LEAF RUST : : SEV.: : : % :	: RESP : : 0-9 :
NE84581	17	2276	64.4	63	134	1	
ID0301	25	2216	68.4	60	137	9	
SD82114	6	2121	66.4	59	134	1	
XNH1354	20	2088	66.6	59	137	18	
XH947	19	2060	65.9	54	134	7	
ND8215	10	2023	62.8	66	138	1	
SD76463-16	5	1893	66.7	61	134	2	
NE82656	14	1874	65.6	62	134	2	
CI1442	1	1850	64.3	76	137	15	
PI476975	3	1745	67.3	56	134	5	
NA-81-362-5	18	1735	72.2	55	134	1	
ND8286	11	1709	64.1	63	137	2	
ND8212	9	1688	61.6	65	138	17	
SD78207-4	7	1635	62.7	61	137	2	
NE83432	16	1621	66.4	55	137	2	
CI17439	2	1554	63.8	63	137	4	
SD82144	4	1548	64.5	60	134	2	
ND8407	12	1465	64.7	65	137	2	
MT8039	26	1446	59.4	63	134	10	
WT176	21	1426	62.2	62	144	4	
ID0180	24	1419	59.9	57	144	14	
SD791231	8	1376	63.4	64	136	5	
NE82438	15	1300	59.6	54	137	1	
ND8460	13	1298	62.5	68	137	2	
WT179	23	1237	63.6	65	144	2	
WT177	22	963	63.1	59	144	2	
MEAN		1676					
LSD(.05)		N.S.					
C.V.		27.5					

LINCOLN
NEBRASKA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1: % :	: LEAF RUST : : SEV.:RESP: : 0-9:
NA-81-362-5	18	4282	81.1	72	138	8
XH947	19	3867	77.8	80	138	8
NE83432	16	3728	77.5	80	141	3
NE84581	17	3596	78.3	80	142	5
NE82656	14	3374	78.7	80	139	2
PI476975	3	3356	78.8	70	138	8
SD82114	6	3347	81.5	91	139	7
SD82144	4	3302	82.4	93	139	8
SD76463-16	5	3297	78.4	91	140	8
ND8215	10	3266	76.1	96	143	8
NE82438	15	3241	78.4	78	139	8
XNH1354	20	3232	75.7	78	140	8
MT8039	26	3141	76.6	86	139	8
ND8407	12	3089	78.7	96	141	5
SD791231	8	2955	80.1	84	140	2
SD78207-4	7	2930	79.2	86	141	2
ND8460	13	2878	79.6	97	143	8
ND8286	11	2867	76.6	87	142	8
CI1442	1	2573	79.5	94	141	5
CI17439	2	2486	77.3	92	144	8
WT179	23	2441	77	90	144	7
ID0180	24	2345	78.6	75	142	5
WT176	21	2291	77.8	91	144	2
ID0301	25	2262	76.1	75	141	7
ND8212	9	2235	73.8	88	142	8
WT177	22	2215	77.5	91	143	8

MEAN	3023
LSD(.05)	489
C.V.	9.9

NORTH PLATTE
NEBRASKA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL
NE84581	17	2873	69.3
NE82656	14	2798	67
XH947	19	2675	62.7
SD76463-16	5	2496	67.1
NA-81-362-5	18	2486	67.2
SD78207-4	7	2443	70.7
SD82114	6	2428	69
MT8039	26	2369	66.4
ND8460	13	2307	69.4
NE82438	15	2255	64
SD791231	8	2232	67.6
CI17439	2	2208	68.1
ND8286	11	2184	65.3
SD82144	4	2158	68.1
ND8407	12	2118	65.4
XNH1354	20	2095	64.1
NE83432	16	2085	65.8
CI1442	1	2066	68.9
ND8212	9	2059	64
PI476975	3	1973	64
WT177	22	1961	68.9
ND8215	10	1827	60.9
WT176	21	1788	63.7
WT179	23	1723	67.1
ID0301	25	1705	63.5
ID0180	24	1671	64
MEAN		2192	
LSD(.05)		403	
C.V.		11.2	

ALLIANCE
NEBRASKA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD : KG/HA	: VOLUME : WEIGHT : KG/HL
NA-81-362-5	18	4364	77.4
NE83432	16	4163	75.3
XNH1354	20	4031	74.7
NE82438	15	4002	72.9
XH947	19	3982	72.6
MT8039	26	3977	.
ID0301	25	3948	72.2
CI17439	2	3827	76.2
NE84581	17	3773	74.8
SD791231	8	3707	74.2
NE82656	14	3682	74.9
ND8212	9	3600	72.6
ND8215	10	3588	71.2
WT176	21	3472	71
ID0180	24	3412	73.9
ND8286	11	3353	74.9
ND8407	12	3341	74
SD82144	4	3339	76.6
PI476975	3	3335	74.8
SD82114	6	3082	77.4
SD76463-16	5	3057	77.5
SD78207-4	7	3055	76.1
WT177	22	3026	73.5
ND8460	13	2999	77.4
CI1442	1	2961	77.4
WT179	23	2863	

MEAN
LSD(.05)
C.V.

BROOKINGS

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:
NA-81-362-5	18	2836	79.5	63	150
NE82438	15	2526	78.2	65	151
SD76598-7	28	2508	77.5	69	151
SD76463-4	29	2397	78.8	74	150
NE83432	16	2307	78.2	69	152
ND8407	12	2293	73.1	71	151
SD76463-16	5	2282	77.1	78	150
NE84581	17	2275	76.4	68	151
NE82656	14	2180	77.3	68	151
WT177	22	2137	74.9	80	153
ND8215	10	2119	69.3	71	152
PI476975	3	2106	76.2	62	150
ROSE	30	2075	75.1	69	151
SD82102	27	2054	75.5	72	150
XH947	19	2044	77.5	61	150
SD82114	6	2042	74.8	72	151
SD82144	4	1951	73.1	73	151
ND8286	11	1925	76.4	69	152
CI17439	2	1865	72.9	78	152
XNH1354	20	1853	75.9	67	152
WT179	23	1750	73.9	77	154
CI1442	1	1717	71.5	80	153
ND8460	13	1679	75.1	78	154
SD78207-4	7	1678	77.9	67	152
SD791231	8	1662	77.1	63	153
ND8212	9	1657	54	77	153
MT8039	26	1617	73.3	69	151
WT176	21	1558	70	75	154
ID0180	24	1244	60.4	69	155
ID0301	25	864	62	69	155

MEAN	1973
LSD(.05)	641
C.V.	19.9

PRESHO
S. DAKOTA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: GENERAL DISEASE 0-3
NE82656	14	1996	66.8	63	150	2
NE83432	16	1920	67.7	57	150	2
SD76463-4	29	1791	68	64	151	2
NE84581	17	1786	63.7	54	151	2
XNH1354	20	1755	67.8	59	151	2
NA-81-362-5	18	1730	70	53	149	2
SD82102	27	1572	64.4	62	151	2
MT8039	26	1563	61.8	64	150	2
ID0301	25	1558	65.8	62	152	2
SD76463-16	5	1539	67.7	66	150	2
NE82438	15	1539	63.1	54	151	2
XH947	19	1537	64.8	60	150	2
WT176	21	1532	66.2	67	154	2
PI476975	3	1450	66.6	58	151	2
ND8407	12	1424	64.4	64	151	2
SD76598-7	28	1377	63.7	62	151	2
SD791231	8	1332	66.8	63	151	2
CI1442	1	1316	67.5	73	154	2
ROSE	30	1295	63.3	65	152	2
SD82144	4	1253	65.7	63	150	2
SD82114	6	1239	64	60	151	3
ND8212	9	1168	61.5	61	154	3
ND8215	10	1115	56.2	68	154	2
SD78207-4	7	1037	62.8	54	151	3
ND8286	11	1006	62.4	58	154	3
WT179	23	976	63.3	58	155	2
ID0180	24	911	61.1	54	156	2
ND8460	13	878	63.8	69	154	3
WT177	22	835	63.3	62	155	2
CI17439	2	661	61.7	63	154	3

MEAN	1370
LSD(.05)	456
C.V.	20.4

HIGHMORE

S. DAKOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: GENERAL DISEASE 0-3
NA-81-362-5	18	2623	73.7	62	150	2
NE82656	14	2588	70.2	69	150	2
NE83432	16	2354	71.5	64	151	2
NE84581	17	2296	69.1	69	151	3
SD76463-4	29	2250	72.4	76	151	3
SD76598-7	28	2247	70.2	74	151	3
SD76463-16	5	2190	72.2	76	152	2
NE82438	15	2189	69.3	69	151	2
XH947	19	2004	69.7	64	151	3
SD82114	6	1959	70.2	74	152	2
SD82102	27	1901	67.3	69	152	3
MT8039	26	1806	65.5	73	152	3
ND8407	12	1759	68.2	83	154	2
PI476975	3	1752	69.8	64	151	3
SD82144	4	1728	69.8	72	151	3
ROSE	30	1714	67.7	64	152	3
ND8286	11	1669	66.9	71	152	3
XNH1354	20	1665	67.3	69	153	3
SD791231	8	1657	70.4	75	153	2
ND8460	13	1533	67.3	81	154	3
ND8215	10	1522	62.9	79	156	2
CI1442	1	1465	70.2	83	156	3
ND8212	9	1396	63.7	77	155	3
SD78207-4	7	1351	68.4	68	152	3
ID0301	25	1210	65.7	72	153	3
CI17439	2	1121	67.3	69	156	3
WT179	23	1105	66.8	69	156	3
ID0180	24	1090	63.8	68	155	3
WT176	21	1074	64	78	154	2
WT177	22	855	66.9	65	156	3

MEAN	1736
LSD(.05)	442
C.V.	15.6

CASSELTON
N. DAKOTA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: WINTER SURVIVAL %
NE82438	15	1806	78.3	59	156	85
ND8212	9	1740	75.2	71	158	95
WT177	22	1691	74.4	73	159	65
ND8286	11	1689	78.3	71	158	97
XNH1354	20	1675	78.4	62	157	73
CI17439	2	1622	77.8	68	158	97
ND8407	12	1563	77.5	64	158	87
PI476975	3	1507	76.6	49	156	63
SD82144	4	1502	76	68	156	90
ND8215	10	1497	74.7	69	160	68
ND8460	13	1486	78.7	66	159	77
NE83432	16	1409	77.5	59	155	80
NE82656	14	1388	77.8	65	155	80
SD82114	6	1300	78.3	60	156	73
SD78207-4	7	1295	77.5	67	157	85
NORSTAR	29	1231	77.8	86	162	92
NE84581	17	1212	75.7	53	156	60
SEWARD	28	1192	76.8	70	159	60
SD76463-16	5	1122	75.5	66	157	63
SD791231	8	1107	77.8	65	158	80
XH696	27	1106	76.4	61	157	40
WT179	23	1068	73.8	67	161	65
CI1442	1	1056	76.4	73	160	58
NA-81-362-5	18	1025	80.5	51	156	37
NORWIN	30	1022	76.6	60	159	62
WT176	21	921	76	72	161	55
ID0180	24	645	75.7	58	162	33
ID0301	25	554	73.7	55	161	30
MT8039	26	400	71.3	65	160	17
XH947	19	381	75.1	66	157	18

MEAN	1240
LSD(.05)	642
C.V.	31.7

CARRINGTON
N. DAKOTA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: WINTER SURVIVAL %
NE82438	15	884	71.9	44	156	100
ID0180	24	836	71.9	44	160	98
ND8286	11	823	69.7	50	158	100
WT179	23	800	69	49	159	100
CI1442	1	794	74.4	55	157	93
NE83432	16	728	71.3	43	156	93
ND8215	10	719	67.7	45	158	100
NE82656	14	699	72.4	45	156	98
WT176	21	674	70.3	49	159	98
WT177	22	663	68	45	158	100
XH696	27	641	73.1	43	156	95
MT8039	26	632	73	48	158	93
SD76463-16	5	621	74	47	158	88
ND8212	9	598	68.6	45	158	93
NE84581	17	583	69.9	44	158	98
ND8407	12	569	71.2	46	159	100
ID0301	25	569	71.5	45	160	78
CI17439	2	513	70.2	46	158	100
NORSTAR	29	500	73.9	47	162	97
SEWARD	28	483	72.6	43	159	97
2-5	18	467	76.5	35	156	88
	19	444	72.8	44	157	98
	7	422	71.7	41	158	95
	6	393	73.9	40	157	88
	20	390	75.3	43	159	87
	30	344	73	32	161	93
		340	73.7	35	156	85
		309	74.2	41	160	72
		240	73.1	37	157	93
		211	73.8	38	160	80

563
288
31.4

WILLISTON

N. DAKOTA

FOUR REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1:
NA-81-362-5	18	778	67.9	40	147
NE84581	17	730	67.3	40	148
SD76463-16	5	718	68.6	46	147
NE83432	16	678	70.3	43	148
PI476975	3	666	69.1	42	147
ID0301	25	636	72.8	41	151
XNH1354	20	629	71.3	46	148
SD82114	6	620	68.6	45	148
NE82656	14	620	68.2	44	147
NE82438	15	619	70	37	149
SD791231	8	602	70.4	41	149
ND8286	11	602	69.7	45	151
ND8460	13	558	67.9	47	150
ID0180	24	555	69.1	43	151
XH947	19	543	67.6	45	147
SD78207-4	7	536	71	41	150
ND8215	10	536	63.5	48	151
ND8212	9	535	65	45	151
ND8407	12	530	65	47	150
CI17439	2	523	68.1	49	151
SD82144	4	518	70.7	43	148
CI1442	1	484	69.8	48	151
MT8039	26	483	68.6	43	148
AGASSIZ	28	474	68.8	46	152
WT179	23	440	68.8	42	153
WT176	21	410	72.6	46	152
WT177	22	409	68.4	44	152
NORSTAR	27	341	70	45	154
MEAN		563			
LSD(.05)		57			
C.V.		7.1			

ROSEMOUNT

MINNESOTA

THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:	: LODGING 0-9	: BYD VIRUS 0-9
MT8039	26	2661	71	88	150	0	2
SD82114	6	2130	73.5	88	150	0	2
NE84581	17	2116	74.2	85	152	0	2
PI476975	3	2087	71	73	149	0	2
CI17439	2	2065	77.4	99	153	0	1
NA-81-362-5	18	1995	72.9	74	149	0	2
NE83432	16	1977	72.9	81	151	1	4
ND8286	11	1964	74.8	94	154	0	1
SD76463-16	5	1948	76.1	97	151	0	2
NE82438	15	1948	68.4	83	153	0	2
SD78207-4	7	1946	72.9	89	152	0	3
ND8212	9	1890	68.4	95	154	0	2
XNH1354	20	1825	72.2	81	153	0	6
SD791231	8	1787	74.2	92	151	0	4
ND8215	10	1784	67.7	99	154	0	2
NE82656	14	1737	68.4	86	150	0	3
CI1442	1	1618	74.2	92	153	0	3
SD82144	4	1616	71	93	149	0	2
ID0301	25	1556	72.2	68	154	0	7
WT177	22	1515	74.8	94	154	0	2
ID0180	24	1509	71.6	83	155	0	3
ND8407	12	1417	71	93	153	4	1
XH947	19	1365	67.7	86	150	0	2
WT179	23	1309	72.2	89	155	0	2
ND8460	13	1302	72.2	97	153	0	2
WT176	21	1197	67.7	90	156	0	2

MEAN	1779
LSD(.05)	N.S.
C.V.	30.3

WASECA
MINNESOTA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1:
NE83432	16	2846	80	58	154
ND8407	12	2740	78	74	155
SD82114	6	2718	79.3	64	154
ND8212	9	2604	77.4	73	155
NA-81-362-5	18	2581	80.6	64	153
ND8215	10	2568	76.1	73	155
NE84581	17	2435	78.7	63	155
WT179	23	2344	77.4	75	155
SD76463-16	5	2258	80	72	153
WT177	22	2252	79.3	71	154
NE82438	15	2231	78.7	63	154
SD78207-4	7	2179	80.6	67	154
ID0180	24	2101	76.1	63	157
CI17439	2	2060	79.3	75	154
ND8286	11	1974	78.7	69	156
MT8039	26	1939	76.1	64	155
WT176	21	1842	75.5	70	156
CI1442	1	1822	79.3	75	153
XNH1354	20	1769	78.7	53	154
SD791231	8	1751	78.7	60	153
NE82656	14	1712	77.4	62	153
ND8460	13	1704	79.3	69	154
SD82144	4	1695	78	65	153
XH947	19	1692	76.1	56	156
PI476975	3	1328	78.7	49	154
ID0301	25	1275	78.7	58	156
MEAN		2093			
LSD(.05)		574			
C.V.		16.7			

SHERIDAN
WYOMING
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:
NA-81-362-5	18	2009	76.3	62	150
NE83432	16	1988	75.6	69	151
SD82144	4	1932	72.5	80	151
NE82656	14	1849	74.2	69	150
PI476975	3	1818	75.4	64	150
XNH1354	20	1757	74.6	69	152
ID0180	24	1751	72.9	73	155
SD78207-4	7	1719	75.8	66	153
ID0301	25	1706	73.4	63	153
MT8039	26	1701	69.5	75	153
ND8407	12	1648	72.8	86	153
SD76463-16	5	1641	74.3	79	151
NE84581	17	1598	73.9	73	152
NE82438	15	1549	73.2	65	153
WT176	21	1473	70.6	73	152
CI17439	2	1464	73.1	77	153
ND8212	9	1448	71.3	78	154
CI1442	1	1426	75.1	77	153
ND8286	11	1336	71.8	72	153
ND8215	10	1302	70.6	75	155
SD82114	6	1251	73.7	69	151
ND8460	13	1219	74.7	79	154
WT179	23	1186	72.5	68	155
WT177	22	1103	73.4	70	155
XH947	19	1045	71.2	67	150
SD791231	8	1036	73	78	153
MEAN		1537			
LSD(.05)		566			
C.V.		22.5			

ARCHER
WYOMING
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: : NO. :	: YIELD : : KG/HA :	: VOLUME : : WEIGHT : : KG/HL :	: PLANT : : HEIGHT : : CM :	: DAYS TO : : HEADING : : FROM 1/1 :
XNH1354	20	1950	75.1	52	161
XH947	19	1930	73.2	54	159
PI476975	3	1861	74.6	53	159
NE84581	17	1809	75.7	53	160
SD82144	4	1775	74.9	55	160
MT8039	26	1771	73.1	54	161
SD76463-16	5	1766	76.4	56	160
CI1442	1	1704	76.4	60	163
ND8286	11	1681	74.4	57	164
SD82114	6	1605	75.4	53	161
NE82656	14	1596	74.6	64	160
NE82438	15	1578	74.9	51	163
CI17439	2	1574	74.9	61	163
NE83432	16	1565	76.2	52	161
SD791231	8	1527	74.6	58	163
NA-81-362-5	18	1527	76.8	49	160
ND8407	12	1511	72.6	58	164
ID0180	24	1491	73.4	57	164
ND8212	9	1441	72.4	52	166
ID0301	25	1428	75.5	51	164
ND8460	13	1296	75.4	58	164
SD78207-4	7	1199	75.9	56	163
WT179	23	1199	73.1	56	166
WT177	22	1175	74	56	165
WT176	21	1128	72.5	55	163
ND8215	10	1098	71.5	58	166
MEAN		1546			
LSD(.05)		422			
C.V.		16.6			

MOCCASIN
MONTANA
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD : KG/HA	: VOLUME : WEIGHT : KG/HL	: PLANT : HEIGHT : CM	: DAYS TO : HEADING : FROM 1/1:	: LODGING : 0-5 :
XNH1354	20	2831	76.9	74	158	0
NE82656	14	2809	74.7	76	157	1
MT8039	26	2791	71.5	82	156	0
NE84581	17	2726	76.5	79	158	1
ID0180	24	2712	76.2	76	161	1
ID0301	25	2690	76.5	70	160	0
NE82438	15	2549	76.6	83	158	0
NA-81-362-5	18	2396	76.9	75	156	1
SD76463-16	5	2392	78	79	157	3
PI476975	3	2336	74.3	63	155	1
SD82114	6	2311	74	78	156	3
ND8212	9	2293	76.2	74	161	2
ND8286	11	2291	78	78	161	1
NE83432	16	2271	77.4	70	158	1
XH947	19	2271	73.9	75	156	1
SD82144	4	2174	76	74	157	1
CI17439	2	2085	79.5	82	159	2
WT179	23	2078	78.2	86	161	1
WT177	22	2069	79.3	82	161	1
ND8215	10	2067	76.4	81	160	1
SD78207-4	7	2047	79.6	75	160	2
ND8407	12	2047	74.4	81	160	2
CI1442	1	1991	79.6	86	161	3
SD791231	8	1903	78	83	157	2
WT176	21	1849	76	85	161	4
ND8460	13	1562	79.9	84	161	1
MEAN		2290				
LSD(.05)		427				
C.V.		11.4				

SIDNEY
MONTANA
FOUR REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:
NA-81-362-5	18	767	77.1	33	145
NE82656	14	763	75.2	37	146
ID0301	25	748	77	37	150
NE82438	15	736	74.7	33	148
SD76463-16	5	725	75.9	41	146
PI476975	3	723	74.6	39	145
ID0180	24	711	74.4	34	152
ND8286	11	706	72.8	38	150
SD82144	4	704	75.2	40	146
XNH1354	20	704	77	36	148
CI17439	2	681	71.8	39	150
ND8215	10	681	68.4	40	151
ND8460	13	679	74.7	42	149
NE83432	16	673	76.8	35	147
ND8407	12	671	71.2	39	149
NE84581	17	671	75.9	29	147
WT177	22	666	71.5	39	152
WT179	23	666	71.5	37	152
CI1442	1	662	74.4	38	150
MT8039	26	627	73.6	37	148
ND8212	9	622	69	37	150
SD78207-4	7	607	75	34	148
WT176	21	583	67.1	40	153
SD82114	6	577	74.3	36	146
SD791231	8	575	76.1	36	147
XH947	19	562	73.9	33	147
MEAN		673			
LSD(.05)		N.S.			
C.V.		16.5			

83

MEAN 3320
LSD(.05) 625
C.V. 13.4

* l=yellow, 5=blue; ** l=erect, 5=prostrate; *** l=wide, 5=narrow.

ABERDEEN

IDAHO

TWO REPLICATIONS

C.I. OR SEL. NO.	: :ENTRY: : NO. :	: YIELD : KG/HA :	: PLANT : HEIGHT : : CM :	: DAYS TO : HEADING : : FROM 1/1:	: DAYS TO : RIPENING: : FROM 1/1:	: LODGING : : 0-9 :	: STRAW : : STRENGTH : : 0-5 :	: FROST : : DAMAGE : : 0-5 :
BLIZZARD	29	5546	96	160	191	1	3	3
NE82438	15	5536	84	156	191	1	2	2
XNH1354	20	5050	83	157	189	0	2	3
NE83432	16	4142	76	156	188	0	3	3
ND8286	11	4128	96	161	187	1	3	2
WT176	21	4073	92	161	189	0	4	3
SD78207-4	7	3955	96	159	191	1	3	3
PI476975	3	3914	71	154	184	0	2	2
ND8215	10	3875	93	157	187	0	2	3
NEELEY	27	3864	82	163	189	0	3	3
WESTON	28	3849	96	155	190	1	3	4
NE84581	17	3837	72	153	184	0	2	3
ID0301	25	3775	74	158	188	0	3	3
SURVIVOR	30	3745	87	159	188	0	3	3
NE82656	14	3724	84	155	185	0	3	3
MT8039	26	3680	93	156	186	0	3	3
XH947	19	3650	74	152	185	0	2	3
ND8407	12	3614	110	159	188	1	3	3
SD82144	4	3558	96	154	182	1	3	3
SD791231	8	3557	89	158	187	1	3	3
SD82114	6	3541	82	156	185	0	3	3
ID0180	24	3507	73	162	188	0	3	3
NA-81-362-5	18	3437	64	152	183	0	1	3
ND8212	9	3325	87	159	186	0	2	2
SD76463-16	5	3286	86	155	185	0	3	3
ND8460	13	3208	105	158	188	1	3	3
WT177	22	2982	93	162	190	0	4	2
WT179	23	2758	81	163	189	0	3	3
CI1442	1	2743	98	161	187	1	4	3
CI17439	2	2701	87	161	185	0	3	3

MEAN	3752
LSD(.05)	1302
C.V.	17.0

LIND
WASHINGTON
THREE REPLICATIONS

C.I. OR SEL. NO.	: ENTRY: NO.	: YIELD KG/HA	: VOLUME WEIGHT KG/HL	: PLANT HEIGHT CM	: DAYS TO HEADING FROM 1/1:
NE84581	17	2165	79.7	61	143
ND8215	10	2056	77.3	66	145
ND8286	11	2040	77.4	66	145
ID0301	25	1928	78.8	58	146
XNH1354	20	1910	78.7	63	145
WT176	21	1870	76	73	146
MT8039	26	1834	75.9	62	142
XH947	19	1831	76.6	58	142
ND8407	12	1796	78.6	68	143
PI476975	3	1789	77.9	52	142
ND8212	9	1784	76.8	64	145
NE82438	15	1731	77.1	59	144
CI17439	2	1726	78.3	65	145
NE82656	14	1722	76.9	60	143
ID0180	24	1706	78.6	64	146
SD76463-16	5	1679	79.5	64	142
SD82144	4	1654	77.5	60	142
CI1442	1	1650	78.8	69	146
SD82114	6	1598	79.9	59	142
WT179	23	1594	77.4	69	149
NA-81-362-5	18	1536	79.6	53	143
WT177	22	1533	78	66	146
SD791231	8	1515	77.8	65	143
ND8460	13	1329	77.7	66	144
NE83432	16	1301	79.1	61	144
SD78207-4	7	800	79.3	58	144
MEAN		1695			
LSD(.05)		289			
C.V.		10.4			

Table 14. Summary of mean yields (kg/ha) of 26 wheats grown in the 1988 Northern Regional Performance Nursery at 20 locations with state means and ranks.

VARIETY OR PEDIGREE	C.I. OR SEL. NO.	ENTRY: NO.	LINCOLN		NORTH		ALLIANCE		NEBRASKA		STATE MEAN	
			NEBRASKA	NEBRASKA	NEBRASKA	NEBRASKA	NEBRASKA	NEBRASKA	NEBRASKA	NEBRASKA	NEBRASKA	NEBRASKA
HiPlains/Wings/3/Pkr*4/Agnt//Bel.198/Lcr	NE82438	15	3241	11	2255	10	4002	4	3166	6		
Complex Pedigree	NE83432	16	3728	3	2085	17	4163	2	3325	4		
OK11252A/W76-1226 (Abilene)	NA-81-362-5	18	4282	1	2486	5	4364	1	3711	1		
Winter Wheat Hybrid	XNH1354	20	3232	12	2095	16	4031	3	3120	8		
Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	17	3596	4	2873	1	3773	9	3414	3		
Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	14	3374	5	2798	2	3682	11	3285	5		
Colt	PI476975	3	3356	6	1973	20	3335	19	2888	14		
Lancota/Froid//NE69559/Wnk	MT8039	26	3141	13	2369	8	3977	6	3162	7		
CI15322//3*(Agent/4*Scout66)	SD76463-16	5	3297	9	2496	4	3057	21	2950	11		
SD74221*2/Lathrop	SD82114	6	3347	7	2428	7	3082	20	2952	10		
Winter Wheat Hybrid	XH947	19	3867	2	2675	3	3982	5	3508	2		
Rrr*2/1809	ND8286	11	2867	18	2184	13	3353	16	2801	18		
Ctk/3/Froid*2//ND363/ND269	ND8407	12	3089	14	2118	15	3341	17	2849	15		
Rrr/3/Froid//Winoka/MW8	ND8215	10	3266	10	1827	22	3588	13	2894	13		
CI15322//Aga/4*Sut 66/3/Ctk 78/4/SD74221	SD82144	4	3302	8	2158	14	3339	18	2933	12		
Rrr//Yogo/Trapper	ND8212	9	2235	25	2059	19	3600	12	2631	21		
Complex Pedigree	ID0301	25	2262	24	1705	25	3948	7	2638	20		
Turkey/Burt//Bezostaya 1	ID0180	24	2345	22	1671	26	3412	15	2476	24		
SD76669*2/KS71591	SD791231	8	2955	15	2232	11	3707	10	2965	9		
SD76109/Rose	SD78207-4	7	2930	16	2443	6	3055	22	2809	17		
Kharkov 22 MC/Bezostaya 1	WT176	21	2291	23	1788	23	3472	14	2517	23		
Roughrider	CI17439	2	2486	20	2208	12	3827	8	2840	16		
Rrr/F0.1527	ND8460	13	2878	17	2307	9	2999	24	2728	19		
Norstar/Rrr	WT179	23	2441	21	1723	24	2863	26	2342	26		
Kharkof	CI1442	1	2573	19	2066	18	2961	25	2533	22		
Norstar/Rrr	WT177	22	2215	26	1961	21	3026	23	2400	25		
MEAN			3023		2192		3536		2917			
LSD(.05)			489		403		650		545			
C.V.			9.9		11.2		11.2		10.9			

Table 14. Continued.

C.I. OR SEL. NO.	ENTRY:	BROOKINGS	HIGHMORE	PRESHO	SOUTH	ARCHER	SHERIDAN	WYOMING	STATE MEAN	WYOMING	STATE MEAN				
NO.	S. DAKOTA	S. DAKOTA	S. DAKOTA	S. DAKOTA	DAKOTA	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING				
NE82438	15	2526	2	2189	6	1539	8	2085	5	1578	12	1549	14	1564	14
NE83432	16	2307	3	2354	3	1920	2	2194	3	1565	14	1988	2	1777	4
NA-81-362-5	18	2836	1	2623	1	1730	5	2396	1	1527	15	2009	1	1768	5
XNH1354	20	1853	16	1665	14	1755	4	1758	10	1950	1	1757	6	1854	2
NE84581	17	2275	6	2296	4	1786	3	2119	4	1809	4	1598	13	1704	8
NE82656	14	2180	7	2588	2	1996	1	2255	2	1596	11	1849	4	1723	7
PI476975	3	2106	10	1752	11	1450	12	1769	9	1861	3	1818	5	1839	3
MT8039	26	1617	23	1806	9	1563	6	1662	12	1771	6	1701	10	1736	6
SD76463-16	5	2282	5	2190	5	1539	8	2004	6	1766	7	1641	12	1704	8
SD82114	6	2042	12	1959	8	1239	17	1747	11	1605	10	1251	21	1428	20
XH947	19	2044	11	2004	7	1537	10	1862	7	1930	2	1045	25	1487	17
ND8286	11	1925	14	1669	13	1006	21	1534	16	1681	9	1336	19	1509	16
ND8407	12	2293	4	1759	10	1424	13	1825	8	1511	17	1648	11	1579	11
ND8215	10	2119	9	1522	17	1115	19	1585	14	1098	26	1302	20	1200	24
SD82144	4	1951	13	1728	12	1253	16	1644	13	1775	5	1932	3	1854	1
ND8212	9	1657	22	1396	19	1168	18	1407	18	1441	19	1448	17	1445	19
190301	25	864	26	1210	21	1558	7	1210	25	1428	20	1706	9	1567	12
ID0180	24	1244	25	1090	24	911	23	1082	26	1491	18	1751	7	1621	10
SD791231	8	1662	21	1657	15	1332	14	1551	15	1527	15	1036	26	1281	22
SD78207-4	7	1678	20	1351	20	1037	20	1355	21	1199	22	1719	8	1459	18
WT176	21	1558	24	1074	25	1532	11	1388	19	1128	25	1473	15	1300	21
CI17439	2	1865	15	1121	22	661	26	1216	24	1574	13	1464	16	1519	15
ND8460	13	1679	19	1533	16	878	24	1363	20	1296	21	1219	22	1258	23
WT179	23	1750	17	1105	23	976	22	1277	22	1199	22	1186	23	1193	25
CI1442	1	1717	18	1465	18	1316	15	1499	17	1704	8	1426	18	1565	13
WT177	22	2137	8	855	26	835	25	1275	23	1175	24	1103	24	1139	26
MEAN		1930		1691		1348		1656		1546		1537		1541	
LSD(.05)		651		428		479		430		422		566		N.S.	
C.V.		20.6		15.4		21.7		19.4		16.6		22.5		19.7	

Table 14. Continued.

C. I. OR SEL. NO.	ENTRY: NO.	WILLISTON N. DAKOTA	CASSELTON N. DAKOTA	CARRINGTON N. DAKOTA	NORTH DAKOTA STATE MEAN	ROSEMOUNT* MINNESOTA	WASECA MINNESOTA	LIND WASHINGTON					
NE82438	15	619	10	1806	1	1103	1	1948	9	2231	11	1731	12
NE83432	16	678	4	1409	12	728	6	1977	7	2846	1	1301	25
NA-81-362-5	18	778	1	1025	21	467	18	1995	6	2581	5	1536	21
XNH1354	20	629	7	1675	5	390	22	1825	13	1769	19	1910	5
NE84581	17	730	2	1212	16	583	14	2116	3	2435	7	2165	1
NE82656	14	620	8	1388	13	699	8	1737	16	1712	21	1722	14
PI476975	3	666	5	1507	8	340	23	2087	4	1328	25	1789	10
MT8039	26	483	23	400	25	632	11	2661	1	1939	16	1834	7
SD76463-16	5	718	3	1122	17	621	12	1948	10	2258	9	1679	16
SD82114	6	620	9	1300	14	393	21	2130	2	2718	3	1598	19
XH947	19	543	15	381	26	444	19	456	26	1692	24	1831	8
ND8286	11	602	11	1689	4	823	3	1038	2	1974	15	2040	3
ND8407	12	530	19	1563	7	569	16	1417	22	2740	2	1796	9
ND8215	10	536	16	1497	10	719	7	1784	15	2568	6	2056	2
SD82144	4	518	21	1502	9	240	25	1616	18	1695	23	1654	17
ND8212	9	535	18	1740	2	598	13	1890	12	2604	4	1784	11
ID0301	25	636	6	554	24	569	15	1556	19	1275	26	1928	4
ID0180	24	555	14	645	23	836	2	1509	21	2101	13	1706	15
SD791231	8	602	11	1107	18	211	26	1787	14	1751	20	1515	23
SD78207-4	7	536	17	1295	15	422	20	1946	11	2179	12	800	26
WT176	21	410	25	921	22	674	9	1197	26	1842	17	1870	6
CI17439	2	523	20	1622	6	513	17	2065	5	2060	14	1726	13
ND8460	13	558	13	1486	11	309	24	1302	25	1704	22	1329	24
WT179	23	440	24	1068	19	800	4	1309	24	2344	8	1594	20
CI1442	1	484	22	1056	20	794	5	1618	17	1822	18	1650	18
WT177	22	409	26	1691	3	663	10	1515	20	2252	10	1533	22
MEAN		575		1256		574		802		1779		1695	
LSD(.05)		57		682		297		N.S.		574		289	
C.V.		7.1		33.1		31.6		31.3		16.7		10.4	

* Not included in state or regional means.

Table 14. Concluded.

C.I. OR SEL. NO.	ENTRY: NO.	SIDNEY* MONTANA	MOCCASIN MONTANA	BOZEMAN MONTANA	MONTANA STATE MEAN	CLOVIS (IRR.)	CLOVIS (DRYL.)* NEW MEXICO	ABERDEEN IDAHO	REGIONAL AVERAGE								
NE82438	15	736	4	2549	7	4049	3	3299	3	3784	10	1300	23	5536	1	2475	1
NE83432	16	673	14	2271	15	4408	1	3340	1	4125	6	1621	15	4142	3	2472	2
NA-81-362-5	18	767	1	2396	8	3743	6	3070	8	4114	7	1735	11	3437	19	2467	3
XNH1354	20	704	9	2831	1	3778	5	3304	2	4641	2	2088	4	5050	2	2412	4
NE84581	17	671	15	2726	4	3380	13	3053	10	3393	14	2276	1	3837	9	2380	5
NE82656	14	763	2	2809	2	3321	15	3065	9	3990	8	1874	8	3724	11	2356	6
PI476975	3	723	6	2336	10	4170	2	3253	5	4439	5	1745	10	3914	7	2243	7
MT8039	26	627	20	2791	3	3447	10	3119	7	4643	1	1446	19	3680	12	2223	8
SD76463-16	5	725	5	2392	9	3614	9	3003	11	3480	12	1893	7	3286	21	2202	9
SD82114	6	577	24	2311	11	3426	11	2869	13	4510	4	2121	3	3541	17	2198	10
XH947	19	562	26	2271	14	2685	24	2478	20	4528	3	2060	5	3650	13	2183	11
ND8286	11	706	8	2291	13	3648	8	2970	12	3447	13	1709	12	4128	4	2157	12
ND8407	12	671	15	2047	21	3393	12	2720	14	3207	16	1465	18	3614	14	2155	13
ND8215	10	681	11	2067	20	3183	17	2625	18	3363	15	2023	6	3875	8	2100	14
SD82144	4	704	9	2174	16	3131	20	2653	17	3761	11	1548	17	3558	15	2098	15
ND8212	9	622	21	2293	12	3135	19	2714	15	3127	17	1688	13	3325	20	2009	16
ID0301	25	748	3	2690	6	3669	7	3180	6	3927	9	2216	2	3775	10	1982	17
ID0180	24	711	7	2712	5	3866	4	3289	4	2653	20	1419	21	3507	18	1912	18
SD791231	8	575	25	1903	24	2863	22	2383	24	2685	19	1376	22	3557	16	1900	19
SD78207-4	7	607	22	2047	21	2864	21	2455	21	2488	21	1635	14	3955	6	1882	20
WT176	21	583	23	1849	25	3151	18	2500	19	2449	22	1426	20	4073	5	1856	21
CI17439	2	681	11	2085	17	2238	25	2161	25	2800	18	1554	16	2701	26	1851	22
ND8460	13	679	13	1562	26	3337	14	2450	22	1845	26	1298	24	3208	22	1772	23
WT179	23	666	17	2078	18	3288	16	2683	16	2386	23	1237	25	2758	24	1765	24
CI1442	1	662	19	1991	23	1750	26	1870	26	2317	24	1850	9	2743	25	1755	25
WT177	22	666	18	2069	19	2774	23	2422	23	2110	25	963	26	2982	23	1752	26

* Not included in state or regional averages.

Table 15. Summary of mean yields (kg/ha) and ranks of 26 wheats grown in the 1988 Northern Regional Performance Nursery at 11 central and northern locations from which a CV of less than 17.5 and a significant F test for entries were obtained.

C.I. OR SEL. NO.	ENTRY: NO.	LINCOLN NEBRASKA	NORTH PLATTE NEBRASKA	ALLIANCE NEBRASKA	ARCHER WYOMING	WASECA MINNESOTA	HIGHMORE S. DAKOTA
NE82438	15	3241 11	2255 10	4002 4	1578 12	2231 11	2189 6
NA-81-362-5	18	4282 1	2486 5	4364 1	1527 15	2581 5	2623 1
NE84581	17	3596 4	2873 1	3773 9	1809 4	2435 7	2296 4
NE83432	16	3728 3	2085 17	4163 2	1565 14	2846 1	2354 3
XNH1354	20	3232 12	2095 16	4031 3	1950 1	1769 19	1665 14
NE82656	14	3374 5	2798 2	3682 11	1596 11	1712 21	2588 2
MT8039	26	3141 13	2369 8	3977 6	1771 6	1939 16	1806 9
XH947	19	3867 2	2675 3	3982 5	1930 2	1692 24	2004 7
SD76463-16	5	3297 9	2496 4	3057 21	1766 7	2258 9	2190 5
SD82114	6	3347 7	2428 7	3082 20	1605 10	2718 3	1959 8
PI476975	3	3356 6	1973 20	3335 19	1861 3	1328 25	1752 11
ND8286	11	2867 18	2184 13	3353 16	1681 9	1974 15	1669 13
ND8407	12	3089 14	2118 15	3341 17	1511 17	2740 2	1759 10
ND8215	10	3266 10	1827 22	3588 13	1098 26	2568 6	1522 17
SD82144	4	3302 8	2158 14	3339 18	1775 5	1695 23	1728 12
ID0301	25	2262 24	1705 25	3948 7	1428 20	1275 26	1210 21
ID0180	24	2345 22	1671 26	3412 15	1491 18	2101 13	1090 24
ND8212	9	2235 25	2059 19	3600 12	1441 19	2604 4	1396 19
SD791231	8	2955 15	2232 11	3707 10	1527 15	1751 20	1657 15
SD78207-4	7	2930 16	2443 6	3055 22	1199 22	2179 12	1351 20
WT176	21	2291 23	1788 23	3472 14	1128 25	1842 17	1074 25
ND8460	13	2878 17	2307 9	2999 24	1296 21	1704 22	1533 16
C117439	2	2486 20	2208 12	3827 8	1574 13	2060 14	1121 22
WT179	23	2441 21	1723 24	2863 26	1199 22	2344 8	1105 23
WT177	22	2215 26	1961 21	3026 23	1175 24	2252 10	855 26
C11442	1	2573 19	2066 18	2961 25	1704 8	1822 18	1465 18
MEAN		3023	2192	3536	1546	2093	1691
LSD(.05)		489	403	650	422	574	428
C.V.		9.9	11.2	11.2	16.6	16.7	15.4

Table 15. Concluded.

C.I. OR SEL. NO.	ENTRY: : NO. :	MOCCASIN : : MONTANA :	BOZEMAN : : MONTANA :	ABERDEEN : : IDAHO :	LIND : : WASHINGTON :	WILLISTON : : N. DAKOTA :	REGIONAL : : AVERAGE :
NE82438	15	2549 7	4049 3	5536 1	1731 12	619 10	2725 1
NA-81-362-5	18	2396 8	3743 6	3437 19	1536 21	778 1	2705 2
NE84581	17	2726 4	3380 13	3837 9	2165 1	730 2	2693 3
NE83432	16	2271 15	4408 1	4142 3	1301 25	678 4	2685 4
XNH1354	20	2831 1	3778 5	5050 2	1910 5	629 7	2631 5
NE82656	14	2809 2	3321 15	3724 11	1722 14	620 8	2541 6
MT8039	26	2791 3	3447 10	3680 12	1834 7	483 23	2476 7
XH947	19	2271 14	2685 24	3650 13	1831 8	543 15	2466 8
SD76463-16	5	2392 9	3614 9	3286 21	1679 16	718 3	2432 9
SD82114	6	2311 11	3426 11	3541 17	1598 19	620 9	2421 10
PI476975	3	2336 10	4170 2	3914 7	1789 10	666 5	2407 11
ND8286	11	2291 13	3648 8	4128 4	2040 3	602 11	2403 12
ND8407	12	2047 21	3393 12	3614 14	1796 9	530 19	2358 13
ND8215	10	2067 20	3183 17	3875 8	2056 2	536 16	2326 14
SD82144	4	2174 16	3131 20	3558 15	1654 17	518 21	2276 15
ID0301	25	2690 6	3669 7	3775 10	1928 4	636 6	2229 16
ID0180	24	2712 5	3866 4	3507 18	1706 15	555 14	2223 17
ND8212	9	2293 12	3135 19	3325 20	1784 11	535 18	2219 18
SD791231	8	1903 24	2863 22	3557 16	1515 23	602 11	2206 19
SD78207-4	7	2047 21	2864 21	3955 6	800 26	536 17	2124 20
WT176	21	1849 25	3151 18	4073 5	1870 6	410 25	2086 21
ND8460	13	1562 26	3337 14	3208 22	1329 24	558 13	2065 22
CI17439	2	2085 17	2238 25	2701 26	1726 13	523 20	2050 23
WT179	23	2078 18	3288 16	2758 24	1594 20	440 24	1985 24
WT177	22	2069 19	2774 23	2982 23	1533 22	409 26	1932 25
CI1442	1	1991 23	1750 26	2743 25	1650 18	484 22	1928 26
MEAN		2290	3320	3675	1695	575	2330
LSD(.05)		427	625	1296	289	57	299
C.V.		11.4	13.4	17.1	10.4	7.1	14.0

Table 16. Continued.

C.I. OR SEL. NO.	ENTRY: NO.	PRESHO S. DAKOTA	HIGHMORE S. DAKOTA	SOUTH DAKOTA STATE MEAN	WILLISTON N. DAKOTA	CASSELTON N. DAKOTA	CARRINGTON N. DAKOTA	NORTH DAKOTA STATE MEAN
NA-81-362-5	18	2446 3	3382 1	2914 2	1358 1	3259 2	1401 17	2006 4
NE82656	14	2688 1	3184 2	2936 1	1351 3	2916 6	1815 2	2027 3
MT8039	26	2540 2	2693 5	2617 4	1200 6	2405 20	1456 13	1687 19
NE82438	15	2233 7	2780 4	2507 5	1142 12	3583 1	1492 12	2073 1
PI476975	3	2255 6	2424 11	2339 8	1146 11	2942 5	1152 20	1747 14
ND8286	11	2163 11	2584 7	2373 7	1193 7	3116 3	1835 1	2048 2
SD76463-16	5	2349 5	2928 3	2639 3	1352 2	2698 11	1541 11	1864 7
SD82144	4	2127 12	2480 9	2303 9	1140 13	3021 4	1401 18	1854 8
SD82114	6	2191 10	2666 6	2428 6	1231 4	2640 13	1439 15	1770 12
ID0180	24	1918 18	1995 19	1956 18	1151 8	2639 14	1659 6	1816 10
ND8215	10	2070 15	2434 10	2252 12	1147 10	2901 8	1774 3	1940 5
ND8212	9	2216 8	2364 12	2290 10	1111 14	2902 7	1766 4	1926 6
WT176	21	2410 4	2080 17	2245 13	1088 17	2487 19	1596 8	1724 18
SD78207-4	7	2087 13	2252 13	2169 15	1102 16	2671 12	1439 16	1738 15
ND8407	12	2072 14	2492 8	2282 11	1210 5	2488 18	1575 9	1758 13
SD791231	8	2210 9	2213 14	2211 14	1084 18	2568 16	1283 19	1645 20
CI17439	2	1742 20	2058 18	1900 19	1150 9	2715 10	1630 7	1832 9
WT179	23	1947 17	2087 16	2017 17	1059 19	2604 15	1545 10	1736 16
WT177	22	1788 19	1954 20	1871 20	1028 20	2723 9	1449 14	1733 17
CI1442	1	1975 16	2205 15	2090 16	1103 15	2500 17	1742 5	1782 11
MEAN		2171	2463	2317	1167	2789	1550	1835
LSD(.05)		446	454	520	N.S.	N.S.	N.S.	N.S.
C.V.		12.2	10.1	11.1	7.2	15.9	27.6	18.9

Table 16. Continued.

C.I. OR SEL. NO.	ENTRY: NO.	ARCHER WYOMING	SHERIDAN WYOMING	WYOMING STATE MEAN	MOCCASIN MONTANA	SIDNEY* MONTANA	BOZEMAN MONTANA	MONTANA STATE MEAN
NA-81-362-5	18	2140 4	2633 2	2387 2	2922 15	1918 3	3746 13	3334 12
NE82656	14	2183 1	2247 10	2215 8	2951 14	1822 12	4026 7	3489 11
MT8039	26	2106 6	2195 12	2151 9	3639 2	1995 2	4495 2	4067 2
NE82438	15	1741 18	2094 13	1918 15	3623 3	1895 4	4166 5	3895 3
PI476975	3	2181 2	2381 7	2281 4	2890 16	1879 6	4326 3	3608 7
ND8286	11	1912 14	1868 17	1890 16	3607 4	1810 13	4112 6	3860 4
SD76463-16	5	2096 7	2450 5	2273 5	3152 10	1867 8	4214 4	3683 5
SD82144	4	2140 5	2747 1	2443 1	3082 12	1807 14	3521 15	3301 13
SD82114	6	1745 16	1771 19	1758 20	2758 17	1617 19	3760 11	3259 14
ID0180	24	2155 3	2550 3	2352 3	4125 1	1871 7	4512 1	4319 1
ND8215	10	1785 15	2271 9	2028 11	3318 6	1859 9	3949 8	3634 6
ND8212	9	1982 12	2526 4	2254 6	3351 5	1839 11	3749 12	3550 10
WT176	21	1623 20	2380 8	2002 13	3269 7	2021 1	3851 10	3560 8
SD78207-4	7	2067 8	1967 16	2017 12	3035 13	1762 15	3410 16	3222 15
ND8407	12	2028 9	2438 6	2233 7	2647 19	1891 5	3596 14	3121 18
SD791231	8	1945 13	1577 20	1761 19	2530 20	1478 20	3367 17	2948 19
CI17439	2	2007 11	1849 18	1928 14	3127 11	1851 10	3275 18	3201 16
WT179	23	1662 19	2061 14	1862 18	3190 9	1760 16	3927 9	3558 9
WT177	22	1742 17	2032 15	1887 17	3215 8	1664 18	3145 19	3180 17
CI1442	1	2016 10	2214 11	2115 10	2706 18	1698 17	2523 20	2614 20

MEAN	1963	2210	2087	3157	1815	3784	3470
LSD(.05)	N.S.	N.S.	N.S.	N.S.	N.S.	838	783
C.V.	17.1	25.1	21.9	9.3	12.3	11.5	10.9

* Not included in state or regional averages.

Table 16. Concluded.

C.I. OR SEL. NO.	: :ENTRY: : NO.	: CLOVIS : : (IRR.) : : NEW MEXICO :	: CLOVIS : : (DRYL.)* : : NEW MEXICO :	: WASECA : : MINNESOTA : : MINNESOTA :	: ROSEMOUNT* : : MINNESOTA : : MINNESOTA :	: ABERDEEN : : IDAHO : : IDAHO :	: LIND* : : WASHINGTON : : WASHINGTON :	: REGIONAL : : AVERAGE : : AVERAGE :
NA-81-362-5	18	5195 3	3063 3	2613 3	1991 9	5048 8	1188 19	3172 1
NE82656	14	5273 2	2817 7	2077 16	2058 5	5091 6	1326 17	3082 2
MT8039	26	4994 5	2832 6	2354 11	2476 1	5670 2	1486 11	3048 3
NE82438	15	3613 16	2123 19	2602 4	2081 4	6210 1	1246 18	3001 4
PI476975	3	4712 6	2721 10	1988 17	2131 2	5308 4	1372 16	2890 5
ND8286	11	3964 13	2511 15	2367 10	2123 3	5120 5	1700 4	2875 6
SD76463-16	5	4488 8	3135 2	2513 7	2048 6	3949 15	1663 5	2850 7
SD82144	4	5135 4	2986 5	1879 19	1854 13	4935 11	1546 9	2844 8
SD82114	6	5279 1	3162 1	2515 6	2022 7	5050 7	1379 15	2831 9
ID0180	24	3401 17	2630 12	2328 12	1610 16	5383 3	1471 12	2811 10
ND8215	10	4559 7	3033 4	2620 2	1937 10	4592 12	1745 2	2800 11
ND8212	9	4115 11	2730 9	2727 1	1874 11	4428 13	1575 8	2761 12
WT176	21	4148 10	2589 14	2228 14	1360 20	4935 10	1763 1	2685 13
SD78207-4	7	3797 14	2188 18	2215 15	1864 12	4947 9	855 20	2643 14
ND8407	12	4035 12	2628 13	2589 5	1661 15	3806 17	1652 6	2640 15
SD791231	8	4156 9	2476 17	1963 18	1843 14	4248 14	1431 13	2554 16
CI17439	2	3750 15	2770 8	2321 13	2021 8	3919 16	1727 3	2524 17
WT179	23	3344 18	2501 16	2409 8	1402 19	3630 19	1540 10	2466 18
WT177	22	3028 20	2092 20	2371 9	1545 17	3761 18	1382 14	2359 19
CI1442	1	3097 19	2656 11	1828 20	1502 18	3606 20	1580 7	2337 20
MEAN		4204	2682	2325	1870	4682	1483	2759
LSD(.05)		1305	N.S.	N.S.	392	1889	448	310
C.V.		11.0	18.5	12.5	22.4	13.7	13.6	13.8

* Not included in state or regional averages.

Table 17. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 26 entries in the 1988 Northern Regional Performance Nursery grown at 17 locations.

C.I. OR SEL. NO.	: ENTRY: NO. :	: MEAN YIELD : OVER 17 : LOCATIONS : KG/HA :	: REGRESSION : COEFFICIENT : (b) :	: CORRELATION : COEFFICIENT : (r) :	: COEFFICIENT : OF : DETERMINATION : (r ²) :
NE82438	15	2475	1.24	0.96	0.92
NE83432	16	2472	1.20	0.96	0.93
NA-81-362-5	18	2467	1.16	0.94	0.88
XNH1354	20	2412	1.29	0.96	0.93
NE84581	17	2380	1.01	0.97	0.95
NE82656	14	2356	1.00	0.95	0.91
PI476975	3	2243	1.15	0.95	0.90
MT8039	26	2223	1.19	0.95	0.91
SD76463-16	5	2202	0.92	0.97	0.94
SD82114	6	2198	1.09	0.95	0.90
XH947	19	2183	1.18	0.92	0.85
ND8286	11	2157	1.01	0.97	0.95
ND8407	12	2155	0.94	0.97	0.95
ND8215	10	2100	1.03	0.97	0.94
SD82144	4	2098	1.01	0.97	0.95
ND8212	9	2009	0.89	0.95	0.91
ID0301	25	1982	1.12	0.91	0.84
ID0180	24	1912	0.96	0.92	0.84
SD791231	8	1900	0.97	0.97	0.94
SD78207-4	7	1882	0.94	0.94	0.88
WT176	21	1856	0.94	0.94	0.88
CI17439	2	1851	0.80	0.91	0.82
ND8460	13	1772	0.83	0.91	0.84
WT179	23	1765	0.78	0.94	0.89
CI1442	1	1755	0.62	0.92	0.84
WT177	22	1752	0.74	0.90	0.81

Table 18. Mean yield, regression coefficient, correlation coefficient, and coefficient of determination from linear regression analysis of variety mean yield on nursery mean yield for the 20 entries in the 1987 and 1988 Northern Regional Performance Nursery grown at 15 locations.

	: MEAN YIELD :	: COEFFICIENT :
	: OVER 15 :	: OF :
C.I. OR ENTRY:	LOCATIONS :	DETERMINATION :
SEL. NO.	NO. : KG/HA :	(b) : (r) : (r ²) :
NA-81-362-5	18 3172	1.12 0.94 0.88
NE82656	14 3082	1.09 0.95 0.89
MT8039	26 3048	1.26 0.97 0.93
NE82438	15 3001	1.06 0.91 0.83
PI476975	3 2890	1.09 0.95 0.91
ND8286	11 2875	1.04 0.97 0.95
SD76463-16	5 2850	0.90 0.97 0.93
SD82144	4 2844	1.10 0.97 0.94
SD82114	6 2831	1.07 0.95 0.91
ID0180	24 2811	1.17 0.94 0.88
ND8215	10 2800	1.03 0.97 0.95
ND8212	9 2761	0.95 0.97 0.94
WT176	21 2685	1.09 0.97 0.94
SD78207-4	7 2643	0.99 0.98 0.95
ND8407	12 2640	0.75 0.94 0.89
SD791231	8 2554	0.95 0.97 0.93
CI17439	2 2524	0.91 0.96 0.92
WT179	23 2466	0.89 0.96 0.92
WT177	22 2359	0.80 0.94 0.89
CI1442	1 2337	0.71 0.95 0.90

Table 19. Summary of agronomic and yield data for 26 wheats in the 1988 Northern Regional Performance Nursery.

C.I. OR SEL. NO.	NUMBER OF LOCATIONS	PLANT ENTRY: HEIGHT : NO. : CM :	LODGING : : 0-5 :	STRAW : : STRENGTH : : 1-5 :	DAYS TO : : HEADING : : FROM 1/1 :	DAYS TO : : RIPENING: : FROM 1/1 :	WINTER : : SURVIVAL : : % :	LEAF RUST: : SEVERITY : : % :	STEM RUST: : SEVERITY : : % :	BYD : : VIRUS : : 0-9 :	VOLUME : : WEIGHT : : KG/HL :	YIELD : : KG/HA :
		18	2	1	18	1	2	2	1	1	19	17
NE82438	15	64	0	2	151	191	93	7	5	2	72.3	2475
NE83432	16	64	1	3	151	188	87	7	60	4	73.7	2472
NA-81-362-5	18	60	1	1	149	183	63	5	50	2	75.4	2467
XNH1354	20	65	0	2	152	189	80	23	90	6	73.3	2412
NE84581	17	65	1	2	151	184	79	1	5	2	73.3	2380
NE82656	14	67	1	3	150	185	89	5	5	3	72.7	2356
PI476975	3	59	1	2	149	184	74	16	1	2	73	2243
MT8039	26	70	0	3	151	186	55	20	10	2	70.2	2223
SD76463-16	5	72	2	3	151	185	76	5	50	2	74.2	2202
SD82114	6	68	2	3	150	185	81	6	10	2	73.8	2198
XH947	19	64	1	2	150	185	58	8	50	2	71.3	2183
ND8286	11	71	1	3	153	187	98	9	10	1	72.6	2157
ND8407	12	75	1	3	152	188	93	4	5	1	72	2155
ND8215	10	74	1	2	153	187	84	3	5	2	69.7	2100
SD82144	4	70	1	3	150	182	92	9	1	2	72.9	2098
ND8212	9	71	1	2	154	186	94	22	1	2	69.5	2009
ID0301	25	63	1	3	153	188	54	14	90	7	71.6	1982
ID0180	24	66	1	3	155	188	66	14	90	3	70.8	1912
SD791231	8	69	1	3	152	187	80	5	10	4	73.8	1900
SD78207-4	7	68	1	3	152	191	90	3	20	3	73.9	1882
WT176	21	73	2	4	155	189	77	6	90	2	70.7	1856
CI17439	2	72	1	3	153	185	98	10	10	1	73	1851
ND8460	13	75	1	3	153	188	74	2	10	2	73.6	1772
WT179	23	71	1	3	155	189	83	6	10	2	71.9	1765
CI1442	1	76	4	4	153	187	76	13	30	3	73.7	1755
WT177	22	72	2	4	154	190	83	7	10	2	72.5	1752

Table 20. Seedling reaction of entries of the 1988 Northern Regional Performance Nursery to selected isolates of *Puccinia graminis* f.sp. *tritici* (by D. V. McVey, U.S.D.A., A.R.S., Cereal Rust Laboratory, U. of MN, St. Paul, MN).

No.	Name or sel. no.	Reaction produced by isolates										Spec. sr gene
		72- 00- 1370C QFBS	69- 21- 399 QSHS	71- 21- 584B RHRS	72- 25- 639C RKQS	72- 00- 53A RIQQ	72- 01- 4A TNMH	74- 21- 1409A TNMK	158-2			
1	Kharkof	S	S	S	S	S	S	S	S		none	
2	Roughrider	;	0	S	S	S	X	X	X		36	
3	Colt	;	2	2	2-	;	;	;	;		6,17,8,9a,11	
4	SD82144	23	2	23	S	;	;	S	S		Seg.17,+	
5	SD76463-16	2	2-	2=	2-	;	;	2=	2=		17,24	
6	SD82114	2,;	23	23	2	;	;	2,;	2,;		10,Seg.6 +	
7	SD78207-4	;	;	2-	--	;	;	;	S		8,17,36	
8	SD791231	;	2=	;	;	;	2-	;	;		Seg.6&17 +	
9	ND8212	;	;	2	23	32	;	;	;		6,36,+	
10	ND8215	;	23	23	23	32	;	;	;		6,+	
11	ND8286	;	0	2-	;	23	X	X	X		36,+	
12	ND8407	;	2	2	S	;	;	;	;		7b,8,6,17,+	
13	ND8460	;	0	;	;	2=	;	;	;		11,36,Seg.6	
14	NE82656	;	1cn	2=	2-	;	;	;	;		6,17,24	
15	NE82438	;	2=	;	;	2=	;	;	;		6,24	
16	NE83432	;	2=	;	2=	2=	2=,S	2=	2=		24 &/or 31	
17	NE84581	;	S	2	;	;	;	;	;		6,8,10,17	
18	NA-81-362-5	;	2=	;	2=	2=	2	2	2		+	
19	XH947	;	2-,S	S	2,S	2,S	;	X,S	X,S		Seg.6,+	
20	XNH1354	S	S	S	S	S	S	S	S		none	
21	WT176	S	S	S	S	S	S	S	S		none	
22	WT177	1	0	23	X-	S	S	S	S		36	
23	WT179	S,;	0,S	S	X	X	S	S	S		Seg.36	
24	ID0180	2	2=	2	2	2-	S	S	S		Temp	
25	ID0301	12n	S	S	;	;	S	S	S		Sr 10	
26	MT8039	S	S	S	S	S	S	S	S		none	

n = necrosis

NA-81-362-5 = Abilene

Table 21. Adult plant field reaction of entries of the 1988 Northern Regional Performance Nursery to Puccinia graminis f.sp. tritici (by D. V. McVey, U.S.D.A., A.R.S., Cereal Rust Laboratory, U. of MN, St. Paul, MN).

No.	Name or sel. no.	Stem rust	
		6/22	7/1
1	Kharkof	TS	30S
2	Roughrider	0	TS
3	Colt	0	20MS
4	SD82144	0	5MR
5	SD76463-16	0	0
6	SD82114	0	0
7	SD78207-4	0	10MR-MS
8	SD791231	0	20MS
9	ND8212	0	TMR
10	ND8215	0	10MS-S
11	ND8286	0	TMR
12	ND8407	0	10MS
13	ND8460	0	TR
14	NE82656	0	TR
15	NE82438	0	10MR
16	NE83432	0	30MR-MS
17	NE84581	0	0
18	NA-81-362-5	TR	TR
19	XH947	0	TR
20	XNH1354	30S	60S
21	WT176	30S	40S
22	WT177	TS	TS
23	WT179	0	TR
24	ID0180	TS	40S
25	ID0301	20S	60S
26	MT8039	20S	30S

Table 22. Hessian fly reaction, Great Plains biotype,
1988 Northern Regional Performance Nursery.
(Data provided by J. H. Hatchett, USDA-ARS,
Manhattan, KS.)

ENTRY NO.	C.I. OR SEL. NO.	REACTION TYPE	NO. OF PLANTS	
			R	S
1	CI1442	H	5	19
2	CI17439	H	4	21
3	PI476975	H	19	5
4	SD82144	S		
5	SD76463-16	S		
6	SD82114	H	6	17
7	SD78207-4	S		
8	SD791231	H	5	18
9	ND8212	S		
10	ND8215	S		
11	ND8286	H	15	12
12	ND8407	H	15	15
13	ND8460	S		
14	NE82656	H	25	4
15	NE82438	H	18	5
16	NE83432	S		
17	NE84581	S		
18	NA-81-362-5	S		
19	XH947	S		
20	XNH1354	S		
21	WT176	S		
22	77	R		
	79	S		
	on	S		
		S		
		S		

Table 23. Virus reactions of entries in the 1988 Northern Regional Performance Nursery. (Data provided by A. D. Hewings and F. L. Kolb, Urbana, Illinois.)

ENTRY NO.	C.I. OR SEL. NO.	: BARLEY YELLOW :	SOILBORNE :	Rep 1	Rep 2
		: DWARF :	MOSAIC :		
		: 0-9 :	0-9 :		
1	CI1442	4	7	7	
2	CI17439	5	7	7	
3	PI476975	2	6	7	
4	SD82144	2	8	8	
5	SD76463-16	6	8	8	
6	SD82114	4	8	9	
7	SD78207-4	7	6	7	
8	SD791231	7	6	7	
9	ND8212	3	7	7	
10	ND8215	7	8	8	
11	ND8286	6	8	7	
12	ND8407	4	8	7	
13	ND8460	6	3	3	
14	NE82656	7	6	7	
15	NE82438	6	5	6	
16	NE83432	6	8	8	
17	NE84581	3	4	5	
18	NA-81-362-5	6	3	3	
19	XH947	4	7	7	
20	XNH1354	7	6	7	
21	WT176	3	6	5	
22	WT177	5	7	8	
23	WT179	7	7	7	
24	ID0180	3	8	8	
25	ID0301	8	7	8	
26	MT8039	6	3	4	

Table 24. Aluminum tolerance of lines tested in the 1988 NRPN based on hematoxylin staining of seedling roots. (Data provided by B. F. Carver, Stillwater, OK)

Entry No.	Selection No.	Stain Intensity ^a			Rating ^b
		Al Concentration (mM)			
		0.18	0.36	0.72	
1	Kharkof	C/P	C	C	VS-MS*
2	Roughrider	C	C	C	VS
3	Colt	P	C	C	MS
4	SD82144	P/C	C/P	C	VS-I*
5	SD76463-16	C/P	C	C	VS-MS*
6	SD82114	C/P/N	C/P	C/P	VS-T*
7	SD78207-A	C	C	C	VS
8	SD791231	C/P	C/P	C	VS-I*
9	ND8212	C	C	C	VS
10	ND8215	C	C	C	VS
11	ND8286	C	C	C	VS
12	ND8407	N	P	P	T
13	ND8460	C	C	C	VS
14	NE82656	P	C	C	MS
15	NE82438	C/P	C	C	VS-MS*
16	NE83432	P	C	C	MS
17	NE84581	P	P	C	I
18	NA-81-362-5	P	P/C	C	MS-I*
19	XH947	C/P	C/P	C	VS-I*
20	XNHL354	C	C	C	VS
21	WT176	N	P	P/C	I-T*
22	WT177	N	N	P	T
23	WT179	N/C	C/P	C/P	VS-T*
24	ID0180	N	P	P/C	I-T*
25	ID0301	C	C	C	VS
26	MT8039	P	P	C	I

^aC, P, and N = complete, partial, and no staining of root tips, respectively.

^bVS = very susceptible, MS = moderately susceptible, I = intermediate and T = tolerant (≤ 0.72 mM Al); * = heterogeneous response; predominant stain intensity listed first for each Al concentration.

QUALITY DATA

Composites of 1-lb samples of each SRPN and NRPN entry from each harvested nursery site are evaluated at the Hard Red Winter Wheat Quality Laboratory at Manhattan, Kansas. Results are reported to cooperators by the laboratory and are not included in this report.

UNIFORM WINTERHARDINESS NURSERIES

The nurseries are comprised of Southern and Northern Materials Sections. In 1988 the Southern Section contained 141 entries and the Northern Section 114 entries. Nursery lists and survival data from test sites at which differential winter survival occurred appear in the tabulations that follow.

SOIL-BORNE MOSAIC NURSERY

The nursery contained 99 entries in 1988. Infection data were reported from Urbana, IL, Lincoln, NE and Manhattan, KS. The nursery list and reaction data are included herein.

1988
Uniform Winterhardiness Nursery
Southern Section

<u>Entry No.</u>	<u>Variety or Pedigree</u>	<u>Se1. No.</u>	<u>Source</u>
1	Warrior	CI13190	Check
2	HiPlains/Wings/3/Parker*4/Agent//Belot.198/Lcr	NE82438	Nebraska
3	CIMMYT/Scout//Agate/Sage Sib	NE82533	"
4	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	"
5	CIMMYT/Scout//Bennett Sib/4/Parker 4*/Agent// Belot.198/Lcr/3/Bez 1/Ctk 78	NE83404	"
6	" "	NE83406	"
7	" "	NE83407	"
8	Wrr*5/Agent//Kavkaz/4/Parker*4/Agent// Belot.198/Lcr/3/Vona	NE83498	"
9	Wrr/Sut//MoW6811/3/Agate Sib/4/NE68457/Ctk78	NE84557	"
10	Scout 66	CI13996	Check
11	Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	Nebraska
12	(FNT/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-CNS-TT1/Sando60/5/Vona/6/ Wrr*5/Agent//Kavkaz	NE83432	"
13	78GH1051 x Mara/2*Sut//Sentinel (NE74649)	NE85556	"
14	84MC22	NE85623	"
15	Wrr*5/Agent//Kavkaz NE77637xNE63218//Ky58/ Nth/2*(CTMH) (NE61983)//Pnc/2*Cnn	NE85707	"
16	Wrr*5/Agent//NE69441 NE76667xNewton	NE86482	"
17	Colt/3/Wrr*5/Agent//Kavkaz	NE86487	"
18	" "	NE86488	"
19	" "	NE86494	"
20	Vona	CI17441	Check
21	Colt/Cody	NE86499	Nebraska
22	"	NE86501	"
23	"	NE86502	"
24	"	NE86503	"
25	"	NE86507	"
26	"	NE86509	"
27	Colt Sib NE78697/3/Wrr*5/Agent//Kavkaz	NE86527	"
28	Colt/Cody	NE86582	"
29	Colt//Bez 1/Ctk78//Arthur/Ctk78	NE86592	"
30	Warrior	CI13190	Check
31	Wrr/Sut//MoW6811//Agate Sib NE77615//Cody	NE86606	Nebraska
32	" "	NE86607	"
33	CLLF/Sturdy/3/Diba/Diga//Suwon92/CI13645 /4/NE7060	NE87U101	"
34	6TA131/Dwf Sel 6TA131//Fain Tc1 Sel/Ctk78	NE83T12	"
35	Fain Tc1/Ctk78 x Ctk78/6A35/NE69150 x TxTcl#50 //NE69150/S-339//TxTcl#50 x NE69150 x Tc1 6TA876	NE86T666	"
36	H15A13333/3/5*Larned/Eagle//Sage/4/TAM105	KS87H6	Kansas (Hays)
37	" "	KS87H15	"
38	" "	KS87H22	"
39	" "	KS87H57	"
40	Scout 66	CI13996	Check

41	H15A13333/3/5*Larned/Eagle//Sage/4/TAM105	KS87H58	Kansas (Hays)
42	GHP2 X211	KS87H63	"
43	"	KS87H64	"
44	"	KS87H65	"
45	"	KS87H66	"
46	"	KS87H67	"
47	H15A13333/3/5*Larned/Eagle//Sage/4/Dodge sib	KS87H264	"
48	Agent/Tascosa//Sturdy	TX71D4876-V5	Texas (Dallas)
49	Amigo/TX71A106-5	TX82D4751	"
50	Vona	CI17441	Check
51	TX75D3165/Amigo	TX84D1265	Texas (Dallas)
52	Victory//Payne/Len	TX86D1305	"
53	Thunderbird//Norseman/Collin	TX86D1308	"
54	Thunderbird//Payne/Collin	TX86D1310	"
55	TX71C8130-R/Veery #4	TX86D1613	"
56	Bulk Selection	Thunderbird	NAPB
57	OK11252A/W79-1226	Abilene	"
58	Experimental Line	XW163	Pioneer
59	"	HBV261B	"
60	Warrior	CI13190	Check
61	Experimental Line	HBV756A	Pioneer
62	"	HBV762A	"
63	"	HBV383A	"
64	"	HBV385D	"
65	Kharkof	CI1442	Check
66	Scout 66	CI13996	"
67	TAM-105	CI17826	"
68	Aurora/2*TAM W-101	OK84343	Oklahoma
69	Payne*2/C0725052	OK84286	"
70	Scout 66	CI13996	Check
71	" "	OK84287	Oklahoma
72	Hawk/OK80099	OK86197	"
73	OK79257/Century Sib/2/Chisholm	OK86215	"
74	TAM W-101*4/Amigo*4//Largo	TXGH10989	Texas
75	Sturdy*3/Amigo	TX81V6582-2	"
76	TAM-105*4/Amigo*4//Largo	TXGH10563B	"
77	KS73146/TX71A1039	TX84V1336	"
78	TX71A562-6*4/Amigo*4//Largo	TXGH13622	"
79	TX71A374-4/TX71A1039-V1	TXGH1317	"
80	Vona		
81	TX71A1039-V1*3/Amigo		
82	TAM-106 resel./TX69D4819		
83	TAM-108/Arkan		
84	Rannaya/NE701136//CI13449/Ctk		
85	" "		
86	74F878/Wings//Vona		
87	74cb462/Trapper//Vona		
88	C05926//7C/Tobari 63/3/Baca		
89	74cb452/Vona//Baca		
90	Warrior		

91	Bison/Sterling//3*Scout/3/Eagle/4/ Pinnacle/2*Eagle	KS84HW196	Kansas
92	Bulk Selection	KS82C2338	"
93	KS73167/Agate//Sage sib	NE82533	Nebraska
94	Wrr/Sut//MoW6811/3/Agate Sib/4/NE68457/Ctk78	NE84557	"
95	CIMMYT/Scout//Bennett Sib/4/Parker*4/Agent //Belot.198/Lcr/3/Bez 1/Ctk78	NE83407	"
96	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	"
97	Winter Wheat Line	RL844677	Rohm & Haas
98	Winter Wheat Line	RL845472	"
99	HRW Selection	AGC-112	Seed Research
100	Scout 66	CI13996	Check
101	" "	AGC-113	Seed Research
102	Bezostaya/TAM W-101//W558	XW141	Pioneer
103	TAM W-101/W603//W558	XW161	"
104	Winter Wheat Hybrid	XH675	HybriTech
105	" "	XH685	"
106	Bounty Hybrid Wheat	Bounty-122	Cargill
107	" "	WH180001	"
108	W79-227/Payne	NA-W84-229	NAPB
109	Payne/W78-069	NA-W83-256	"
110	Vona	CI17441	Check
111	OK11252A/W79-1226	NA-W81-162-W	NAPB
112	IL77-4259/IL76-3845	IL83-7439	Illinois
113	TX69A330/IL76-3820	IL80-1251	"
114	CHA Hybrid Mustang/3/T-105*4/Amigo*4//Largo, TXGH10289	TX87HA1	Texas
115	(7C-CNO/Cal.)/Baca//Vona	C0820026	Colorado
116	74F878/Wings//Vona	C0820009	"
117	74CB452/Vona//Baca	C0830014	"
118	74cb462/Trapper//Vona	C0830027	"
119	Mir.808/Vona	C0840015	"
120	Warrior	CI13190	Check
121	Mir.808/Vona	C0840016	Colorado
122	"	C0840032	"
123	Newton/Baca//Vona	C0840050	"
124	Newton/Baca//Newton	C0840062	"
125	(CLLF2/Pch)/Vona//Tpr	C0840111	"
126	Emy/Ctk//Sandy/3/Vona	C0840136	"
127	NS14/NS603//Nwt/3/PB835	C0850034	"
128	NS14/NS25//2*Vona	C0850060	"
129	Buck Buck "s"/NA434//Vona	C0850104	"
130	Scout 66	CI13996	Check
131	F51/F71//77F50362/3/Vona	C0850166	Colorado
132	Bez 1/Sava//Ctk/3/C0710125	C0850202	"
133	NS14/NS83//Tpr/3/Vona	C0850213	"
134	Buck Buck "s"/Ctk//Vona	C0850246	"
135	F16/F71//Nwt/3/Vona	C0850260	"
136	Ka1/Bb//Cj71"s"/3/Hork "s"/4/77F50362/5/Vona	C0850267	"
137	Veery "s"/Vona//Pb835	C0850273	"
138	Siouxland Composite	TXSXL	Texas
139	Siouxland	SXL	Nebraska
140	Winter Wheat Line	RH7846	Rohm & Haas
141	Vona	CI17441	Check

1988 Uniform Winterhardiness Nursery
Southern Section

Entry	Casselton, ND		Highmore, SD		St. Paul, MN		Mead, NE	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
	----- % survival -----							
1	80	75	100	100	100	100	100	100
2	80	70	100	100	100	100	100	100
3	70	20	100	100	100	100	100	100
4	80	80	100	100	100	100	100	100
5	80	70	100	100	100	100	100	100
6	85	75	100	100	100	100	100	100
7	85	75	100	100	100	100	100	100
8	80	75	100	80	100	100	100	100
9	60	50	100	100	100	100	100	100
10	85	60	100	100	100	100	100	100
11	80	55	100	100	100	100	100	100
12	90	60	100	100	100	100	100	100
13	75	5	100	100	100	100	100	100
14	30	20	100	100	100	100	90	90
15	85	60	100	100	100	100	100	100
16	75	40	100	100	100	100	100	100
17	80	30	100	100	100	100	100	100
18	75	0	100	100	100	100	100	100
19	75	10	100	100	100	100	100	100
20	45	10	100	100	100	100	100	100
21	60	50	100	100	100	100	100	100
22	55	50	100	100	100	100	100	100
23	50	60	100	100	100	100	100	100
24	60	70	100	100	100	100	100	100
25	65	75	100	100	100	100	100	100
26	60	75	100	100	100	100	100	100
27	40	70	100	100	100	100	100	100
28	35	70	100	100	100	100	100	100
29	50	75	100	100	100	100	100	100
30	75	80	100	100	100	100	100	100
31	60	60	100	100	100	100	100	100
32	65	60	100	100	100	100	100	100
33	45	50	100	100	100	100	100	100
34	40	55	100	100	100	100	100	100
35	30	60	100	100	100	100	100	100
36	60	60	100	100	100	100	100	90
37	65	70	100	100	100	100	100	100
38	65	60	100	100	100	100	100	100
39	40	60	100	100	100	100	100	100
40	65	75	100	100	100	100	100	100
41	40	80	100	100	100	100	100	100
42	75	80	100	100	100	100	100	100
43	45	85	100	100	100	100	100	100
44	50	85	100	100	100	100	100	100
45	70	85	100	100	100	100	100	100
46	0	30	100	100	100	100	100	100
47	0	45	100	100	100	100	100	100
48	5	55	100	100	100	100	90	100
49	5	55	100	40	100	100	90	80

1988 UWHN, Southern Section

Entry	Casselton, ND		Highmore, SD		St. Paul, MN		Mead, NE	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
----- % survival -----								
50	10	60	100	100	100	100	100	100
51	5	20	100	100	100	100	50	40
52	5	90	100	100	100	100	100	100
53	0	20	100	100	0	15	20	20
54	5	85	100	60	100	100	100	100
55	0	70	100	90	0	15	70	60
56	20	90	100	100	100	100	100	100
57	15	90	100	100	100	100	100	100
58	10	90	100	100	100	100	100	100
59	15	95	100	100	100	100	100	100
60	70	95	100	100	100	100	100	100
61	75	95	100	100	100	100	100	100
62	50	90	100	100	100	100	100	100
63	30	90	100	100	100	100	100	100
64	30	90	100	100	100	100	100	100
65	45	90	100	100	100	100	100	100
66	50	90	100	100	100	100	100	100
67	30	80	100	100	100	100	100	100
68	0	60	100	100	100	100	80	80
69	20	75	100	100	100	100	100	100
70	55	90	100	100	100	100	100	100
71	50	85	100	100	100	100	100	100
72	50	75	100	100	100	100	100	100
73	60	70	100	100	100	100	100	100
74	0	20	30	100	0	50	80	80
75	5	40	30	100	100	100	90	100
76	75	80	100	100	100	100	100	100
77	60	30	100	100	100	100	80	100
78	45	60	100	100	100	100	90	100
79	0	55	100	100	100	100	100	100
80	20	55	100	100	100	100	100	100
81	0	40	100	100	100	100	70	80
82	10	70	100	100	100	100	100	100
83	10	70	100	100	100	100	100	100
84	10	75	100	100	100	100	100	100
85	10	80	100	100	100	100	100	100
86	0	80	100	100	0	7	100	100
87	0	75	100	100	100	100	100	100
88	0	80	100	100	100	100	100	100
89	0	45	100	100	100	100	70	100
90	30	90	100	100	100	100	100	100
91	5	75	100	100	100	100	100	100
92	5	75	100	100	100	100	100	100
93	30	80	100	90	100	100	100	100
94	40	85	100	90	100	100	100	100
95	80	90	100	100	100	100	100	100
96	85	95	100	100	100	100	100	100
97	50	85	100	100	100	100	100	100
98	70	90	100	100	100	100	100	100
99	75	95	100	100	100	100	100	100

1988 UWHN, Southern Section

Entry	Casselton, ND		Highmore, SD		St. Paul, MN		Mead, NE	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
----- % survival -----								
100	75	95	100	100	100	100	100	100
101	20	85	100	100	100	100	100	90
102	45	85	90	100	100	100	100	90
103	45	85	100	100	100	100	100	100
104	50	85	100	100	100	100	100	100
105	40	85	100	100	100	100	100	100
106	0	70	100	100	100	100	100	100
107	0	70	100	100	100	100	90	90
108	0	75	100	100	100	100	100	100
109	40	90	100	100	100	100	100	100
110	10	80	20	100	100	100	100	100
111	10	80	100	100	100	100	100	100
112	80	95	100	100	100	100	100	100
113	75	95	100	100	100	100	100	100
114	75	95	100	100	100	100	100	100
115	50	90	50	100	100	100	100	100
116	10	85	100	100	100	100	100	100
117	5	70	100	100	100	100	90	100
118	0	70	90	100	100	100	100	100
119	10	75	100	100	100	100	100	100
120	75	95	100	100	100	100	100	100
121	5	25	100	100	100	100	100	90
122	20	75	100	100	100	100	100	100
123	0	70	100	100	100	100	100	100
124	0	70	100	100	100	100	100	100
125	5	70	100	100	100	100	100	100
126	0	60	100	100	100	100	100	100
127	0	60	100	100	100	100	100	100
128	0	50	100	30	100	100	100	100
129	0	70	100	100	100	100	100	100
130	30	80	100	100	100	100	100	100
131	0	75	100	100	100	100	100	100
132	0	75	100	100	100	100	100	100
133	5	85	100	100	100	100	100	100
134	0	50	100	100	100	100	90	100
135	0	65	100	100	100	100	100	100
136	0	60	100	100	100	100	100	100
137	0	70	100	100	100	100	100	100
138	50	85	100	100	100	100	100	100
139	60	85	100	100	100	100	100	100
140	5	50	100	100	100	100	100	100
141	5	50	100	100	100	100	100	100

1988
Uniform Winterhardiness Nursery
Northern Section

<u>Entry No.</u>	<u>Variety or Pedigree</u>	<u>Sel. No.</u>	<u>Source</u>
1	Norstar	CI17735	Check
2	NE7763//Ctk/ND7777	ND8501	No. Dakota
3	SD74221//Frd/ND7712	ND8511	"
4	Translocation C/CI8888	ND8523	"
5	ND7601//Ctk/ND7601	ND8530	"
6	ND7723//Rrr/ND7620	ND8536	"
7	Ctk/ND7637//Ctk/ND7655	ND8581	"
8	ND7735-11//Wnk/Newton	ND8585	"
9	ND7735-4//Rrr/Solar	ND8589	"
10	Warrior	CI13190	Check
11	ND7735-28/Siouxland	ND85100	No. Dakota
12	"	ND85103	"
13	ND7735-34/KS79379	ND85105	"
14	ND7735-34/KS79346	ND85111	"
15	"	ND85114	"
16	ND7735-38/KS79379	ND85118	"
17	ND7620/Siouxland	ND85137	"
18	ND7882/Rose	ND8603	"
19	SD75314/MT7431	ND8626	"
20	Centurk 78	CI17724	Check
21	ND7714/SD75314	ND8638	No. Dakota
22	"	ND8640	"
23	"	ND8645	"
24	ND7771/SD75284	ND8651	"
25	ND7771/Rrr	ND8654	"
26	"	ND8655	"
27	ND7731/Siouxland	ND8660	"
28	Ctk/ND78103	ND8664	"
29	Rose/ND7481	ND8677	"
30	Norstar	CI17735	Check
31	Rose/ND7481	ND8679	No. Dakota
32	SD73177/ND7703	ND8683	"
33	SD75284/Siouxland	ND8692	"
34	"	ND8694	"
35	"	ND8698	"
36	ND7659/Agate	ND86105	"
37	ND7611/Rrr	ND86120	"
38	Rrr/NK76W239	ND86136	"
39	Winalta/ND7637	ND86140	"
40	Warrior	CI13190	Check
41	Winoka	SDM8127	So. Dakota
42	"	SDM16029	"
43	"	SDM16050	"
44	"	SDM16069	"
45	"	SDM16085	"

Winoka	SDM16091	So. Dakota
"	SDM16116	"
"	SDM16129	"
"	SDM16132	"
Centurk 78	CI17724	Check
Winoka	SDM16149	So. Dakota
"	SDM16156	"
"	SDM16166	"
"	SDM16169	"
"	SDM16187	"
"	SDM16208	"
"	SDM17011	"
"	SDM17021	"
"	SDM17025	"
Norstar	CI17735	Check
Winoka	SDM17032	So. Dakota
"	SDM17033	"
"	SDM17055	"
"	SDM17074	"
"	SDM17083	"
"	SDM17087	"
"	SDM17088	"
Winoka	Winoka	"
ID0033/PR04930//M1d/Lind	SD87123	"
Warrior	CI13190	Check
ID0033/PR04930//M1d/Lind	SD87124	So. Dakota
"	SD87125	"
"	SD87126	"
Nwt/SD56281	SD87127	"
"	SD87128	"
"	SD87131	"
Sage/Art//BTY309/2*Rrf	SD87138	"
"	SD87140	"
Lcr/Frd//NE69559/Wnk/3/Ne11	SD87143	"
Centurk 78	CI17724	Check
Lcr/Cnn//YT0-117-20/Ctk/3/A1ab	SD87145	So. Dakota
Sage/Art//Hp1/ND7747	SD87148	"
Lco/Frd//NE69559/Wnk*4/3/TX71A30	SD87155	"
Lcr/Cnn//YT0117-20/Ctk/3/Nwt	SD87141	"
Kharkof	CI1442	Check
Roughrider	CI17439	"
Colt	PI476975	"
CI15322//Agate/4*Scout 66/3/Ctk 78/4/SD74221	SD82144	So. Dakota
CI15322//3*(Agent/4*Scout66)	SD76463-16	"
Norstar	CI17735	Check
SD74221*2/Lathrop	SD82114	So. Dakr
SD76109/Rose	SD78207-4	"
SD76669*2/KS71591	SD701221	"
Rrr//Yogo/Trapper		
Rrr/3/Froid//Winoka/WW8		
Rrr*2/1809		
Ctk/3/Froid*2//ND363/ND269		
Rrr/FO.1527		
Brule/3/Parker*4/Agent//Belot.198/Lcr		
Warrior		

101	HiPlains/Wings/3/Pkr*4/Agent//Belot.198/Lcr	NE82438	Nebraska
102	(FTN/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-Cns-TT1 (CTMH)/ Sando60/5/Vona/6/Wrr*5/Agent//Kavkaz	NE83432	"
103	Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	"
104	OK11252A/W76-1226 (Abilene)	NA-81-362-5	NAPB
105	Winter Wheat Hybrid	XH947	HybriTech
106	" "	XNH1354	"
107	Kharkov 22 MC/Bezostaya 1	WT176	Lethbridge
108	Norstar/Rrr	WT177	"
109	"	WT179	"
110	Centurk 78	CI17724	Check
111	Turkey/Burt//Bezostaya 1	ID0180	Lethbridge
112	Hgl/ID5006/4/II-60-156/CI14107//It/3/ 2Cnn/PI178383	ID0301	Idaho
113	Lancota/Froid//NE69559/Wnk	MT8039	Montana
114	Norstar	CI17735	Check

1988 Uniform Winterhardiness Nursery
Northern Section

Entry	Casselton, ND		Highmore, SD	
	Rep 1	Rep 2	Rep 1	Rep 2
	----- % Survival -----			
1	95	75	100	100
2	80	75	100	100
3	85	85	100	100
4	90	80	100	100
5	80	75	100	100
6	80	75	100	100
7	75	80	100	100
8	85	90	100	100
9	90	90	100	100
10	85	75	100	100
11	80	80	100	100
12	75	85	100	100
13	80	95	100	100
14	75	95	100	100
15	80	95	100	100
16	80	95	100	100
17	80	90	100	90
18	75	90	100	100
19	70	90	90	100
20	30	90	100	100
21	75	90	100	100
22	75	90	100	100
23	80	80	100	100
24	75	80	100	100
25	85	80	100	100
26	90	90	100	100
27	75	90	100	100
28	60	85	100	100
29	70	80	100	100
30	80	85	100	100
31	90	80	100	100
32	85	80	100	100
33	45	80	100	100
34	70	80	100	100
35	70	80	100	100
36	75	80	100	100
37	90	90	100	100
38	90	85	100	100
39	90	90	100	100
40	85	85	100	100
41	80	85	100	100
42	70	80	100	100
43	75	80	100	100
44	75	80	100	100
45	60	75	100	100
46	40	75	100	100
47	40	70	100	100
48	35	85	100	100
49	25	70	100	100

1988 UWHN, Northern Section

Entry	Casselton, ND		Highmore, SD	
	Rep 1	Rep 2	Rep 1	Rep 2
	----- % Survival -----			
50	20	60	100	100
51	20	60	70	100
52	25	65	100	100
53	10	60	100	100
54	10	50	100	100
55	10	60	100	90
56	15	55	100	100
57	30	50	100	100
58	10	50	100	100
59	5	15	100	100
60	95	80	100	100
61	10	30	100	100
62	10	15	40	100
63	5	20	30	100
64	10	45	80	100
65	0	35	100	100
66	0	35	100	100
67	0	25	100	100
68	10	60	100	100
69	30	45	100	100
70	25	45	100	100
71	40	45	100	100
72	40	50	100	100
73	45	40	100	100
74	30	40	100	100
75	20	40	100	100
76	10	55	100	100
77	5	80	100	100
78	15	80	100	100
79	60	80	100	100
80	45	75	100	100
81	15	75	100	100
82	30	75	100	100
83	85	80	100	100
84	75	80	100	100
85	75	85	100	100
86	80	90	100	100
87	70	60	100	100
~			100	100
			100	100
			100	100
			100	100
			90	100
			100	100
			100	100
			100	100
			100	100
			100	100
			100	100
			80	100
			90	100

1988 UWHN, Northern Section

Entry	Casselton, ND		Highmore, SD	
	Rep 1	Rep 2	Rep 1	Rep 2
	----- % Survival -----			
100	35	85	100	100
101	30	90	100	100
102	75	90	100	100
103	65	80	100	100
104	70	70	100	100
105	60	55	100	100
106	65	60	100	100
107	90	90	100	100
108	85	90	100	100
109	90	95	100	100
110	25	35	100	100
111	85	60	100	100
112	75	55	100	100
113	75	50	100	100
114	90	95	100	100

1988
Soilborne Mosaic Nursery

<u>Entry No.</u>	<u>Variety or Pedigree</u>	<u>Se1. No.</u>	<u>Source</u>
1	Pawnee	CI11669	Check
2	HiPlains/Wings/3/Parker*4/Agent//Belot.198/Lcr	NE82438	Nebraska
3	CIMMYT/Scout//Agate/Sage Sib	NE82533	"
4	Brule/3/Parker*4/Agent//Belot.198/Lcr	NE82656	"
5	CIMMYT/Scout//Bennett Sib/4/Parker 4*/Agent// Belot.198/Lcr/3/Bez 1/Ctk 78	NE83404	"
6	" "	NE83406	"
7	" "	NE83407	"
8	Wrr*5/Agent//Kavkaz/4/Parker*4/Agent// Belot.198/Lcr/3/Vona	NE83498	"
9	Wrr/Sut//MoW6811/3/Agate Sib/4/NE68457/Ctk78	NE84557	"
10	Concho	CI12517	Check
11	Bez 1/Ctk78//Arthur/Ctk78/3/Bennett	NE84581	Nebraska
12	(FNT/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-CNS-TT1/Sando60/5/Vona/6/ Wrr*5/Agent//Kavkaz	NE83432	"
13	78GH1051 x Mara/2*Sut//Sentinel (NE74649)	NE85556	"
14	84MC22	NE85623	"
15	Wrr*5/Agent//Kavkaz NE77637xNE63218//Ky58/ Nth/2*(CTMH) (NE61983)//Pnc/2*Cnn	NE85707	"
16	Wrr*5/Agent//NE69441 NE76667xNewton	NE86482	"
17	Colt/3/Wrr*5/Agent//Kavkaz	NE86487	"
18	" "	NE86488	"
19	" "	NE86494	"
20	Bison	CI12518	Check
21	Colt/Cody	NE86499	Nebraska
22	"	NE86501	"
23	"	NE86502	"
24	"	NE86503	"
25	"	NE86507	"
26	"	NE86509	"
27	Colt Sib NE78697/3/Wrr*5/Agent//Kavkaz	NE86527	"
28	Colt/Cody	NE86582	"
29	Colt//Bez 1/Ctk78//Arthur/Ctk78	NE86592	"
30	Pawnee	CI11669	Check
31	Wrr/Sut//MoW6811//Agate Sib NE77615//Cody	NE86606	Nebraska
32	" "	NE86607	"
33	CLLF/Sturdy/3/Diba/Diga//Suwon92/CI13645 /4/NE7060	NE87U101	"
34	H15A13333/3/5*Larned/Eagle//Sage/4/TAM105	KS87H6	Kansas (Hays)
35	" "	KS87H15	"
36	" "	KS87H22	"
37	" "	KS87H57	"
38	" "	KS87H58	"
39	GHP2 X211	KS87H63	"
40	Concho	CI12517	Check

41	GHP2 X211	KS87H64	Kansas (Hays)
42	"	KS87H65	"
43	"	KS87H66	"
44	"	KS87H67	"
45	H15A13333/3/5*Larned/Eagle//Sage/4/Dodge sib	KS87H264	"
46	Experimental Line	XW163	Pioneer
47	"	YW171	"
48	"	HBV261B	"
49	"	HBV756A	"
50	Bison	CI12518	Check
51	Experimental Line	HBV762A	Pioneer
52	"	HBV383A	"
53	"	HBV385D	"
54	"	HBV517A	"
55	"	W2439G	"
56	"	HBV262F	"
57	W79-227/Payne	NA-W84-229	NAPB
58	OK11252A/W79-1226	NA-W81-162	"
59	Payne/W78-069	NA-W83-256-W	"
60	Pawnee	CI11669	Check
61	II18889/Tpr//C0652643/3/Baca	Hawk	NAPB
62	SN/Tpr//Wrr/3/II18889/Tpr//C0652643	Mustang	"
63	Payne*2/C0725052	OK84286	Oklahoma
64	"	OK84287	"
65	Hawk/OK80099	OK86197	"
66	OK79257/Century Sib/2/Chisholm	OK86215	"
67	TAM-106 rese1./TX69D4819	TX84V1736	Texas
68	TAM-108/Arkan	TX86A7041	"
69	Rannaya/NE701136//CI13449/Ctk	TX86V1109	"
70	Concho	CI12517	Check
71	Rannaya/NE701136//CI13449/Ctk	TX86V1110	Texas
72	74cb452/Vona//Baca	C0830014	Colorado
73	Winter Wheat Line	RL844677	Rohm & Haas
74	Winter Wheat Line	RL845472	"
75	HRW Selection	AGC-112	Seed Research
76	"	AGC-113	"
77	TAM W-101/W603//W558	XW161	Pioneer
78	Winter Wheat Hybrid	XH675	HybriTech
79	"	XH685	"
80	Bison	CI12518	Check
81	"	WH180001	Cargill
82	IL77-4259/IL76-3845	IL83-7439	Illinois
83	TX69A330/IL76-3820	IL80-1251	"
84	CHA Hybrid Mustang/3/T-105*4/Amigo*4//Largo, TXGH10287	TX87HA1	Texas
85	Rrr/FO.1527	ND8460	No. Dakota
86	(FTN/MI/Hope)//Pnc/2*Cnn/3/Pnc/3*Cnn/4/ Pnc/2*Cnn//ILL#1-Cns-TTi (CTMH)/ Sando60/5/Vona/6/Wrr*5/Agent//Kavkaz	NE83432	Nebraska
87	Winter Wheat Hybrid	XH947	Hybritech
88	"	XNH1354	"
89	Hg1/ID5006/4/II-60-156/CI14107//It/3/ 2Cnn/PI178383	ID0301	Idaho
90	Pawnee	CI11669	Check

91	Winter Wheat Line	RH7846	Rohm & Haas
92	Agent/Tascosa//Sturdy	TX71D4876-V5	Texas (Dallas)
93	Amigo/TX71A106-5	TX82D4751	"
94	TX75D3165/Amigo	TX84D1265	"
95	Victory//Payne/Len	TX86D1305	"
96	Thunderbird//Norseman/Collin	TX86D1308	"
97	Thunderbird//Payne/Collin	TX86D1310	"
98	TX71C8130-R/Veery #4	TX86D1613	"
99	Concho	CI12517	Check

1988 SOILBORNE MOSAIC NURSERY
Disease Scores

Entry	Urbana, IL		Lincoln, NE		Manhattan, KS	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
	--- 0-9 ---		---- 0-5 ----		--- R-S ---	
1	7	6	3	3.5	S	S
2	6	3	3	4	S	S
3	5	4	3	2.5	R	R
4	5	5	4	4	MS	S
5	6	7	4	4	S	S
6	7	7	4	4	S	S
7	6	7	3.5	4	S	S
8	6	7	3.5	4	S	S
9	8	6	4	3.5	R	R
10	3	4	2	2.5	R	R
11	4	4	2	3	R	R
12	8	8	4	4	R	R
13	8	7	3	3.5	S	S
14	5	4	1	2	R	R
15	7	6	4	3.5	R	R
16	6	5	4	4	R	R
17	8	7	4	4	MS	S
18	7	7	4	4	S	S
19	6	6	4	4	S	S
20	6	6	3.5	3.5	S	MS
21	6	6	3	3.5	MS	MS
22	5	5	3.5	4	MS	MR
23	5	6	4	4	MS	MR
24	7	7	4	4	MR	MR
25	6	6	3.5	3.5	MR	MR
26	7	7	4	3.5	MS	MR
27	8	7	4	4	S	MS
28	6	8	4	3.5	R	R
29	7	7	3.5	3.5	R	R
30	7	7	3.5	3.5	MS	MR
31	7	7	3.5	3.5	R	R
32	7	7	3.5	3.5	R	R
33	7	7	4	4	R	MR
34	8	7	3.5	3.5	R	MR
35	8	8	3.5	3	R	MR
36	8	8	4	3.5	S	S
37	8	8	3.5	3.5	S	S
38	8	8	3.5	4	S	S
39	7	7	3.5	3.5	MR	R
40	4	2	2	1	R	R
41	6	7	3	3	MS	MS
42	6	7	3.5	3	R	R
43	4	6	3.5	3	R	R
44	5	6	3	3	R	R
45	6	4	2.5	2.5	R	R
46	4	4	3	2	R	R
47	4	3	1	2.5	R	R
48	3	2	1	2	MS	MS
49	4	2	1	2	S	S

1988 Soilborne Mosaic Nursery

Entry	Urbana, IL		Lincoln, NE		Manhattan, KS	
	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
	--- 0-9 ---		--- 0-5 ---		--- R-S ---	
50	7	7	4	4	S	S
51	3	3	2	2.5	MR	R
52	3	2	2	2.5	R	R
53	3	2	1	2	R	R
54	6	5	4	4	S	S
55	5	3	2	3	MR	R
56	4	3	2.5	3	R	R
57	6	8	1	3	R	R
58	3	3	2	3	R	R
59	4	6	3.5	4	R	R
60	6	7	4	4	S	S
61	2	3	1	1.5	R	R
62	6	7	3	2	MR	MR
63	7	8	4	3.5	S	S
64	7	8	4	4	S	S
65	2	3	2.5	3	R	R
66	8	9	4	3	S	S
67	9	9	4	4	S	S
68	8	7	4	3.5	S	S
69	7	3	4	3.5	S	S
70	2	7	3	2	R	R
71	7	7	4	4	S	S
72	9	8	4	4	S	S
73	5	5	3	2	R	R
74	7	7	4	4	S	S
75	7	8	4	4	MS	MS
76	2	4	3	3	R	R
77	3	3	3	3	R	R
78	7	7	3	3	R	R
79	6	5	4	3.5	R	R
80	8	8	4	4	MS	S
81	5	8	3.5	3.5	MR	MS
82	6	6	4	4	MS	S
83	7	6	3.5	4	S	S
84	6	7	3	3	R	R
85	2	6	2.5	2	R	R
86	7	3	4	4	S	S
87	6	8	4	3.5	R	R
88	6	7	4	3.5	S	S
89	7	7	4	3.5	S	S
90	7	7	3.5	3.5	MS	S
91	4	4	2	1	R	R
92	7	7	4	4	S	S
93	9	9	4	4	S	S
94	8	8	4	4.5	S	S
95	4	5	3	2.5	R	R
96	-	-	2.5	3.5	R	R
97	7	6	2.5	2.5	R	R
98	-	7	4	4	S	S
99	4	4	3	2	R	R

